

# MILITARY REVIEW

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# THE LINK

Major Reginald Hargreaves, *British Army (Ret.)*

Who shall know how he may report . . . by adding fuel to the flame?

—John Milton

*The views expressed in this article are the author's and are not necessarily those of the Department of the Army or the Command and General Staff College.—The Editor.*

**T**HROUGHOUT the last 3,400 years, war has been in progress—in one place or another—for all but 268 of them. From the days of Xenophon and Polybius onward there have been war-writers and commentators recording and analyzing the conduct of operations which, as in the case of Julius Caesar, they had personal experience of, or, as with Vegetius and Froissart, they learned about from the lips of the actual participants.

The accredited war correspondent, writing of events as they are actually played out beneath his eyes, is a relatively recent innovation, dating back no further than 1809. It is true that the record exists of a much earlier piece of direct war-reportage, in the form of a diary entry, set down in Latin, by an anonymous priest who was present throughout the Battle of Agincourt (25 October 1415). "I write this," the chronicler records, "sitting on horseback among the baggage in the rear of the battle." He goes on to give a first-class running commentary on the course of action as it was fought out under his gaze, until the moment when the French center crumpled under a concen-

tric attack from both flanks, and fell away in ruin. The entry concludes rather abruptly, since the writer was caught up in a sudden attack on the baggage train, deserted by its guards in their eagerness to join in the general hurly-burly. So far as it goes, a more spirited description of close-action battle-fighting would be hard to discover.

It was many years, however, before the good priest's private diary-note was given to the world at large—it was first printed in 1832—and in the meantime an odd combination of war correspondence and propaganda had appeared in the shape of the *Swedish Intelligencer*, sponsored by King Gustavus Adolphus of Sweden and Poland.

## The First Correspondent

The first genuine war correspondent to take the field was a minor member of *The London Times*—Henry Crabb Robinson. As the newspaper's foreign correspondent in Altona, Crabb Robinson was within sound of the guns when the British Fleet—with Nelson as second in command—was thundering at the gates of Copenhagen in 1801. His first assignment specifically as a war correspondent came with the order to proceed to the Spanish peninsula, where a small British force under Sir John Moore had taken the field against the legions of Napoleon. With the allied Spanish armies in a complete state

*Members of our modern democracies insist that the press be on the ground to bear witness to, and prepare reports on, any and all activities which affect the general welfare and well-being of their countries*

of disruption, Moore was forced into a grueling retreat over the cruel, snow-covered Galician mountains—hotly pursued by Marshal Soult.

As it so happened, Crabb Robinson arrived at the port of Corunna just as Moore turned to fight off the French, so close on his heels as to seriously threaten the re-embarkation of his troops. *The Times* man was, of course, without any official accreditation to military headquarters, and although he was stirred by the spectacle of British officers in their weatherworn scarlet jackets, hurriedly abandoning a half-eaten meal to hasten away to the battleline, and seriously distressed at the sight of the "walking wounded" straggling back into the town, he made contact with no more than the fringe of the fight. Bewildered by his strange surroundings and entirely in the dark as to the course events had taken, it was only with the pistol shots of the British troopers—slaughtering their horses lest they fall into enemy hands—that the newspaperman realized that the game was up, and that it behooved him to make speedy arrangements for his own escape. By the light of flaming store-dumps and amid the roar of enemy gunfire, the vessel that Crabb Robinson had succeeded in chartering joined the fleet of transports bearing the remnants of Moore's battered army home to England.

The calling of war correspondent had

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scarcely enjoyed an auspicious start. Nor was there any encouragement for his re-appearance during the course of the Duke of Wellington's subsequent campaign in the Iberian Peninsula. On the contrary, the "Iron Duke" was emphatic in his denunciation of "the babbling of the English newspapers, from whose columns the enemy constantly draw the most certain information of the strength and situation of the Army." This was a double-barreled protest, aimed not only at the English newspapers which revealed military secrets and offered a forum for ill-informed criticism and querulous complaint, but at the source wherefrom the public prints received their unending stream of comment and disclosure—the officers of Wellington's own army.

Indefatigable letter writers, many of them with friends among the Parliamentary opposition, who were only too eager to pass on for publication anything that might prove embarrassing to the Government and its chosen commander in chief, these officers wrote with a license only outmatched by their infantile lack of judgment. Unadmitted to the secret of Wellington's strategic master-plan, they freely criticized movements and combinations whose real purpose they entirely failed to comprehend. They were ever forgetful—as are many of their successors—of the fact that, as "Corporal Trim" put it, "a soldier's observation cannot extend beyond the muzzle of his firelock." On questions of detail—the numbers and disposition of troops, the construction and scope of defensive positions, magazines and stores, and the like—they could, and did, inadvertently furnish information which, pieced together, enabled the French to draw a very accurate picture of their antagonist's resources and general order of battle. In effect, being subjected to no censorship, either in the field or at home, these writers were responsible for a war correspondence whose



value, from an *intelligence* point of view, Wellington in no way overestimated.

Then there were the diarists, officers and men; for literacy was far from unknown even among "the scum of the earth" that made up the rank and file of the peninsular army. Invaluable as they may be to present-day historians, the bulk of these diaries and journals are so detailed and revealing that the thought of their falling into enemy hands—as some of them did—can evoke nothing but sympathy for the commander in chief's denunciation of those military "blabbers . . . whose writing is mischievous exactly in proportion as it is well-founded and correct."

If Crabb Robinson's somewhat slender claim to have been the first war correspondent be set aside, then that distinction must go to George W. Kendall, proprietor and star reporter of the New Orleans *Picayune*, who took the field on behalf of his paper in the Mexican War of 1846-47. Full of pluck and enterprise, Kendall was present at the fall of Monterey, at the Battle of Buena Vista, and at Vera Cruz. To get his dispatches forwarded expeditiously, he organized a service of pony expresses, known as the "Kendall Express," which were a model of their kind. On one occasion, \$5,000 were unhesitatingly paid to charter a steamer to carry urgent copy from Vera Cruz to New Orleans. All in all, Kendall set a pace that was not to be outmatched until the hey-day of the war correspondent in Europe.

### The Crimean War

It was in Europe, in 1854, with the war clouds gathering over the Crimea, that *The Times* once more made arrangements to "cover" the activities of the allied Franco-Turko-British forces; their choice on this occasion falling on one of their best descriptive writers, the bluff, burly Irishman, William Howard Russell.

There can be no question that *The Times*

man started off under considerable handicap. Although given "permission to proceed" by the British Government, he arrived at the scene of action to discover that he enjoyed no status as an accredited correspondent whatsoever. So far as Expeditionary Force Headquarters was concerned, he had no official existence. He drew no rations, had no claim on quarters or transport, and—far more important from a professional point of view—was furnished with no information. Lord Raglan, the British Commander in Chief, had been Lord Wellington's Military Secretary; and it is clear that he had thoroughly assimilated the Iron Duke's prejudice against "scribblers." Forced to fall back on camp gossip and the evidence of his own eyes, it is little wonder that, sometimes failing to see the forest for the trees, Russell's dispatches took on a tone of criticism barely distinguishable from the "carping."

Not that grounds for complaint were lacking. Following the campaign of Waterloo, 40 years of neglect and decay had so enfeebled the six departments (civil and military) concerned in the organization of an expeditionary force, that the troops reached the Crimea with the problem of logistics, as well as that of the medical and hospital services, virtually unrealized, let alone mastered. Almost everything required to keep an army healthy, nourished, and properly clothed was lacking and a paralysis of apathy seemed more inclined to accept disorder and insufficiency than to seek their remedy. In the absence of any general staff organization, the commander in chief—who was also master general of the ordnance—was so overwhelmed with paperwork as to be denied the opportunity to personally investigate a state of affairs which, unsatisfactory at the outset, threatened swiftly to degenerate into unalleviated chaos. What had been intended as a speedy pounce on the fortress of

Sevastopol, with the object of destroying its defenses prior to concentration in another theater of operations, had so lacked impetus that nothing was left but to settle down to the stronghold's formal investment; for that, preparations were entirely lacking.

To the manifold defects in planning, as to the discomforts imposed on troops whose wastage from sickness and undernourishment promised to be calamitous, Russell drew stern attention in a series of letters to his newspaper, and which successfully aroused the indignation of his readers by the vividness with which he "brought war to the fireside and breakfast table." He was supported in his denunciation of muddle and inefficiency by his editor, Delane, in a series of *The Times* "leaders" which were nothing less than diatribes against the Government responsible for so ghastly an example of shortsightedness and mismanagement.

#### *Russia's Best Spy*

Insofar as he was successful in arousing the public conscience to a lively concern for the welfare of its army in the field, Russell could feel that the severity of his strictures had been more than justified. Unfortunately, in the process of laying bare the facts of the troops' suffering and privation, the newspaperman unwittingly betrayed military secrets which could not fail to be of vital interest to the enemy. In short, a hundred revealing details were woven into the text of Russell's dispatches; to the amazed enlightenment of Gortschakoff—the Russian Minister for War—who solemnly affirmed that, however unwittingly, *The Times* correspondent had proved the best spy the Muskovite Secret Service possessed.

In effect, in his anxiety to fulfill his duty as the link between the suffering rank and file in the Crimea and their friends, relatives, and well-wishers at home, Russell had entirely overlooked the

equally important duty of keeping inviolate all and every scrap of information that could be of service to his country's enemies, or of disservice to the very men whose well-being was genuinely his first concern.

This is not to say that field headquarters were entirely blameless in the matter. Had the staff been tactful enough to admit Russell to their confidence instead of pointedly ignoring him, it is a moral certainty that his dispatches would have gained enormously in discretion without any corresponding sacrifice of pungency. After all, no one was more eager for all-around improvement than the commander in chief; no one more urgent in his recommendations to the home Government with whom the responsibility for near-disaster so plainly rested. Raglan and *The Times* man should have been allies, not enemies. Collaboration epitomizes the relationship of the war correspondent *vis-à-vis* the authorities, since it is only through collaboration that the interests of the public and the prosperity of military operations can alike be safeguarded.

As it was, Russell worked entirely without the benefits of consultation or the restraints of censorship, and what he wrote went through unmodified and unchecked. He possessed a remarkably virile pen. The same liberty of action was, of course, enjoyed by all the other correspondents who subsequently joined the expedition; the archaeologist, A. H. Layard, A. H. Keane, G. A. Henty—subsequently to earn fame as a writer for boys—and the eastern traveler, A. W. Kinglake. Yet, the only complaint laid against any of *The Times* man's colleagues was on the score of Kinglake's horsemanship; the preposterous toss he took at the battle of the Alma rendering the unfortunate fellow peculiarly suspect with the hard-going riders of Lord Lucan's Cavalry Division.

### Post-Crimea Reporting

Whatever else may be said of it, it is clear that the Crimea had demonstrated the need for war correspondents, while at the same time it had exposed the danger of turning them loose without any control over their activities. In any case, once a public taste has become firmly established, its future appeasement becomes infeasible. Up to the time of the Crimea, the official dispatches covering a military enterprise had served amply to satisfy general curiosity. Once Russell had popularized the role of war correspondent, the assignment of descriptive writers to all subsequent campaigns was a foregone conclusion. Since demand creates supply, a novel race of writers swiftly came into being—tough, indefatigable, intrepid, and resourceful—men whom Field Marshal Lord Wolseley rather peevishly described as “the newly invented curse of modern armies.” However much certain elements among the military might resent them—and opinions were by no means unanimous—it was quite evident that they had come to stay.

Rivals were springing up to challenge Russell's pre-eminence, as was only to be expected. However, his valuable work throughout the Indian mutiny left him the obvious choice when it came to selecting a writer to report the mounting tension which led ultimately to the War between the States. Hustled off at remarkably short notice, on the eve of hostilities, *The Times* man was only too well aware that his editor's sympathies unquestionably leaned toward the South. Russell himself landed in New York, as he confessed, “in almost entire ignorance of the crisis and of the issues at stake”; although he added dispassionately, “I had read *Uncle Tom's Cabin*.” Uninfluenced by the pervasive propaganda of Mrs. Beecher Stowe's monumental philippic, the newspaperman's sentiments gradually hardened in favor of the North. For all

that, the objective candor of his dispatch on the Manassas encounter—First Bull Run—called down the vials of wrath on his head, from Northern press and public alike. It was not so much that the veracity of his account was in question; equally unsparing comments on the indifferent showing of some of the raw Federal troops had appeared in virtually every newspaper throughout the Union. It was, rather, that, owing to the delays entailed in crossing and recrossing the Atlantic, Russell's uncompromising summary of events reached Washington and New York just when spiritual recovery from near-disaster was in no mood to be reminded of a *boulversement* that public opinion had come to regard as no more than the stepping stone to better things. In plain fact, Russell was, very largely, made the scapegoat of his editor's undisguised partisanship for the South; and there is more than generosity in the assertion of the American historian, J. F. Rhodes, that “it was not Delane who called this sound and able writer home; we sent him away.”

In the Crimea and in India, Russell had easily outshone his professional competitors; it was a very different matter with the band of energetic pressmen who took the field on behalf of such publications as *The New York Times*, *The New York Sun*, and *The New York Tribune*; the last-named being represented by the brilliant George W. Smalley, who must be ranked with his immediate successors, Bennett Burleigh and Januarius Aloysius MacGahan, as among the most outstanding war correspondents that America has given to the world. There were also some remarkably spry young gentlemen representing James Gordon Bennett's *New York Herald*; pushing and tenacious inquisitors whose unflagging enterprise wrung from General Sherman the grim threat to hang any war correspondent found in his camp after a certain day.

With the outbreak of the Seven Weeks'

War between Prussia and Austria in 1866, one of the first men on the spot was the afore-mentioned George W. Smalley; his reputation firmly established by the fine work he had accomplished between 1861 and 1865. Attached to the Prussians, this aggressive newspaperman created a staggering precedent by expending no less than \$500 in cable charges to report a breakdown in the peace negotiations. Correspondents had hitherto contented themselves with a modest telegram once in a while. Time was to render the "electromagnetic telegraph" the principal medium for the transmission of the war correspondent's news-story; the ensuing Franco-Prussian campaign of 1870-71 being the first occasion upon which it was resorted to with anything like freedom and regularity.

It is almost needless to record that it was through the enterprise of two American correspondents, Hands of *The New York Tribune*, and Moncure D. Conway of *The New York World*, that the wires were utilized for the first "scoop" ever to be engineered. The occasion was the Battle of Gravelotte, fought on 19 August 1870. Early on the 20th, Hands telegraphed a full description of the engagement to his London office, where Smalley cabled it at a cost of \$5,000 to New York, where it appeared in the *Tribune* on the morning of the 23d. Conway, on the other hand, surviving a 12-hour trip on the top of a freight car into Belgium, just managed to catch the cross-Channel boat, and arrived in London with his own version of events, which he cabled to his own newspaper and, by arrangement, also to the *Tribune* and the *Daily News*. Since dispatches sent in the ordinary field post averaged 7 days to reach their destination, this example of "hustle" constituted a scoop of major importance.

Another extraordinary scoop was achieved by an individual with no direct connection with the newspaper world what-

ever. A young German-American named Gustav Muller—attached to one of the Prussian field ambulances—found himself at Metz at the precise moment when the dejected troops of Marshal Bazaine slouched through the *Porte Serpenoise* to lay down their arms in unconditional surrender. Having accepted a London newspaper's vague commission to do any journalistic work which might come his way, Muller was quick to realize that here was a piece of news that would fairly startle the world. Taking "French leave" from his unit, he set out along the Moselle valley, through a region infested with *franc tireurs*—40 miles north to the Luxembourg frontier. Crossing it, he managed to find a telegraph office in the tiny hamlet of Esch, a place so small as to be shown only on a large-scale map. From this vantage point he succeeded in getting off a long telegram detailing the momentous events leading up to the surrender of the great frontier bastion; beating most of his competitors by a matter of days.

#### Indefatigable Forbes

Painful as was the chagrin of the accredited war correspondents, Muller's phenomenal scoop proved an enormous stimulant to enterprise. Thereafter, the competition to be "first with the news" added appreciably to the newspaperman's anxieties and fatigues, and, to tell the truth, left the older generation, in the person of "Billie" Russell, somewhat floundered. Moving sedately about in the majestic company of Prussian Field Headquarters, *The Times* man's graphic and beautifully written dispatches lost much of their appeal by appearing in print long after the events described had been dealt with, at least in outline, by his more energetic rivals. Of these perhaps the most resourceful was Archibald Forbes of the *London Daily News*.

A remarkably tough Scotsman, who had served for a time in the Dragoons, Forbes combined a practical knowledge of soldier-

ing with a physical robustness that made light of a hell-to-leather dash from the battlefield to the nearest unrestricted telegraph office—even if the journey was one of a hundred miles or more. Once arrived, he would immediately set to work, turning out sheet after sheet of copy, until the dispatching clerk had sent what amounted to four solid columns of print over the wires. Then, without pause for more than a mouthful of food and drink, he would take the return road to the scene of action, his one concern to be back on the spot where news was in the making.

For all that, Russell did succeed in getting the better of his younger rival by being first with the news of the capital's imminent surrender; having recognized Jules Favre—a member of the Committee of National Defense in Paris—when brought through the German lines under escort, and drawn the obvious conclusion.

Not that Forbes was slow to score a return triumph, since he left Russell at the post by slipping into Paris ahead of the Germans' official entry—which *The Times* man had arranged to accompany. A special train awaited Russell to take him from Paris to Calais; the lengthy description of the conquerors' victory march through a humbled, sullen Paris could be dictated to a subordinate on the way, whereafter a waiting messenger could cross the Channel by special steamer, where another special train would bear the precious missive to London. So it transpired; but Printing House Square had failed to allow for the resourcefulness of the indefatigable Forbes.

Afoot in the streets from an early hour on the morning of the official entry, the Scotsman was perilously delayed when a mob of loafers denounced him as a Prussian spy, and insisted on bringing him before the nearest command post to establish his alleged identity. Roughly handled as he had been, the determined newspaperman succeeded in making his way

through the cordon guarding all exits from Paris and in finding a telegraph office in one of the outlying suburbs. From this vantage point he sent off a lengthy wire, which reached London just in time for the *Daily News* second edition. Then, without a moment's pause, the tireless fellow made his way to the coast (rumor had it that he performed the journey disguised as the fireman on Russell's train), crossed the Channel, hurried to London, and burst into the *Daily News* office—his clothes torn and bloodstained from the fracas in which he had been embroiled—to sit down and reel off a wonderfully vivid firsthand narrative of Paris under the heel of the conqueror.

Forbes, of course, represented the new generation of war correspondents to whom speed of transmission meant quite as much as the gravity and importance of the intelligence they transmitted. Unhampered by any censorship, their liberty of action was only fettered by the lack of facilities for forwarding their dispatches. An elaborate system of couriers, with a chain of post horses linking the scene of action with the nearest telegraph office, sufficed in some instances. However, more often than not the onus of transmitting his material fell directly on the correspondent himself; as did the responsibility for organizing his personal transport and subsistence. That these could prove formidable burdens, events only too frequently demonstrated.

### MacGahan of the *Daily News*

In the Russo-Turkish War of 1877, for example, operations were conducted in the bleak, barren, and inhospitable Balkans, where the lack of amenities in the field was aggravated by the remoteness of the nearest telegraph office in far-off Bucharest. In this campaign, by far the most distinguished writer to accompany the armies was the Irish-American, J. A. MacGahan, representing the *Daily News*. Hero



of the amazing lonely ride to overtake Kauffman's Russian army on its march to Khiva, MacGahan's forthright account of what have passed into history as the "Bulgarian atrocities" so incited the Slav population of Russia to fury that their passionate demand for retribution on "the unspeakable Turk" rendered war inevitable.

Handicapped by a broken ankle bone, MacGahan took the field with his injured limb still in a cast. While accompanying General Gourko in his spectacular raid over the Balkan Mountains, in the Hankoij Pass, his horse slipped over the edge of a precipice and fell on him, breaking the half-set bone. Undeterred, MacGahan procured a litter, and continued with his work. Present at the siege and fall of Plevna, he was a witness of the surrender of the stern, unbending Osman Pasha; thereafter pressing on to cross the main pass of the Balkans in the dead of winter, to join the Russian forces mustering for the investment of Constantinople. With operations suspended while the Treaty of Berlin was under negotiation, typhoid fever broke out in the Russian camp, speedily claiming its toll of thousands. Among the first to fall a victim of the pestilence was Lieutenant Greene—an American officer attached to the Muskovite Army. With no one else to share the task, MacGahan took immediate charge of the desperately sick man, devotedly nursing him through the worst of his delirium and the first stages of convalescence. It was a devotion which cost him his life. As Greene made his slow way to recovery, MacGahan sickened with malignant typhus; and a few days later he was lowered into his far-off foreign grave, about which the mourners of a dozen nationalities were not ashamed openly to shed their tears. In fitting tribute to his selfless courage and devotion to duty, his body was eventually borne to his homeland aboard a United States warship.

As head of the profession in lineal descent from Russell, the indefatigable Archibald Forbes was on the Balkan scene early, accompanied on this occasion by Frederick Villiers, the artist-correspondent of the London *Daily Graphic*. Public curiosity was no longer satisfied by a bald account of events in the theater of war, however speedily transmitted. It had, in addition, to be accompanied by illustrations made on the actual scene of action. It is not given to many men to write and draw with equal facility; but Villiers' admitted ability as an artist-correspondent was speedily challenged by another enterprising American, Frank D. Millet, who was later to achieve distinction as a painter. Others of the same type were Seppings Wright, Alfred Pearse, William Simpson, and Melton Prior. Millet was a graphic descriptive writer as well as an accomplished draftsman; and his courier service throughout the campaign was so brilliantly organized that the Russian General Gourko was glad to avail himself of it for the transmission of his official dispatches. Neither was Forbes behind his enterprising rival in the perfected elaboration of his arrangements. For the great Russian defense of the Schipka Pass, for example, the Scotsman had four horses available, three of them spaced out at regular intervals back along the road to the Danube. Riding the fourth, and exchanging it for one of the relays at the first 30-mile stage—a process repeated all along the route—the correspondent was able to bring Imperial Headquarters at Gorni Studen the news of the Turks' repulse many hours ahead of the dispatch-rider bearing the official tidings. Early the next morning, having completed a journey of 140 miles in 24 hours, Forbes was busy telegraphing a full account of events to London.

The Russo-Turkish campaign is particularly momentous in having witnessed the introduction of field censorship by the

military authorities, which was ultimately to put so drastic a curb upon the freedom of description and comment in which the war correspondent had hitherto indulged. Relatively mild in its operation at first, its control tightened considerably as one or two rather blatant indiscretions brought home sharply, to those responsible for the strategic master plan, that the time comes in every war when a nation has to choose between news and victory.

If the Russians had discovered a valuable source of information in Russell's tardily printed letters from the Crimea, with the speed given to communications from the seat of war by the electric telegraph, the danger of betrayal, however unwitting, had proportionately increased. Wellington once declared that all warfare consisted of trying to guess what was on the other side of the hill. Mid-nineteenth century military opinion was solidly agreed that it was no part of a war correspondent's business, however inadvertently, to supplement an enemy commander's blind conjectures. From 1877, therefore, can be dated that progressive control over the newspaperman's dispatches, to whose increasing severity successive generations of "the Sons of Ishmael" have had to grow philosophically accustomed.

### The Zulu Campaign

Not that opportunities for individual enterprise were entirely ruled out, as the ubiquitous Archibald Forbes was to demonstrate during the Zulu Campaign of 1878-81. Actually, the Scotsman was with a British force in Afghanistan when the news reached him of the Zulu massacre of the baggage-guard and camp followers at Isandhlwana, and the indomitable defense of Rorke's Drift. He was in time—in company with Melton Prior—to join the search party sent out to recover the slaughtered body of the Imperial French Prince killed on reconnaissance while attached to the British force commanded by

Lord Chelmsford. With the punitive expedition organized against the Zulus more than repaid by the crushing victory of Ulundi, Forbes was especially anxious to get the news to England, where the entire country was still in spiritual mourning for the tragedy of Isandhlwana. There was no cable between Cape Town and England, but an inland telegraph system did exist between the coast and certain points in Cape Province itself. Disdaining to wait for the official dispatch-bearer and his escort, Forbes set off at nightfall, while the powder reek was still thick on the air. His way lay through unknown and tangled bush country, infested with hostile natives; the telegraph office at Landmann's Drift was all of 120 miles away. Morning found him at his objective; where he paused only long enough to put his story on the wire before riding on another 170 miles to Durban, to mail Melton Prior's sketches of the Zulus' assault on the British square.

### Winston Churchill

There were plenty of hardships—and a tightening censorship—with the Gordon Relief Expedition, and the subsequent punitive column for the subjugation of the Mahdi, which set out under the command of Sir Herbert Kitchener. Correspondents, both American and British, were in the field in great number, cheerfully sharing the hardships of the troops and the hazards of the desert—many of them sacrificing their lives in the service of their papers. Edmond O'Donovan and Frank Vizitelly, who had been with Russell in the United States, were among those to be added to the mounting roll of newspapermen who had fallen in the line of duty—a scroll of honor that was to reach formidable proportions within the first half of the following century.

The American correspondent, Bennett Burleigh, with his early news of the victory of Omdurman, could lay unquestiona-



ble claim to the best scoop of the Kitchener campaign. He was also distinguished as the first war-writer to be honored with an official *Mention in Despatches*. But riding as a troop commander in the 21st Lancers was a young officer whose observant eye and vivid pen, after apprenticeship in Cuba and on the northwest frontier of India, was to associate the name of Winston Churchill—throughout the South African War—with all that is daring and original in the war correspondent's art. It is very possible that the more reactionary among the military authorities were not entirely without a feeling of relief when the seething ebullience of this *enfant terrible* among newspapermen was temporarily put on ice behind the barbed wire of a Boer prisoner of war camp. The more perceptive fully realized what a valuable link he formed between the fighting man in the field and the anxious public at home—eager for news and that reassurance which is only to be found in a tempered and judicious candor. With writers tackling their work with a sense of responsibility, under the aegis of a sympathetic and temperate censorship, Field Marshal Wolseley's earlier dictum that "war correspondents were the curse of modern armies," could no longer be said to apply.

### World War I

With the outbreak of war in 1914, it was speedily discovered that Lord Kitchener was of the same unaccommodating way of thinking. So men whose solid, conscientious labors had survived the freakish censorship of the Turko-Balkan Campaign of 1912 discovered that they were not to be allowed to take the field at all. Throughout the anxious months of autumn 1914, the British Expeditionary Force to France appeared to have vanished into the *Ewigkeit*; where trickled a few terse official communiques and an occasional guarded dispatch from the sardonic

humorist who wrote under the official anonymity of "Eye Witness." Yet, with the turmoil which followed on the complete misfire of the French Plan 17, embroiling in its chaotic confusion the allied British Expeditionary Forces on its left, the time was scarcely right for disclosure and too revealing comment. It was only with the riposte of the advance on the Aisne that the question again arose as to the advisability of sending accredited correspondents to the front, to act, as of old, as the link between the folk at home and the fighting men who held the country's destiny at their bayonet points.

However, when permission was finally given for a select body of war correspondents to proceed to the scene of action, they found a state of affairs very different from anything previously experienced. As Sir Edward Cook was to sum it up in his *The Press in War Time*:

*Owing to the vastly increased range of modern weapons and extended sphere of military operations on the one hand, and owing, on the other, to the extreme severity of the censorship, the opportunities even of the most enterprising correspondents are greatly restricted—all placed in very much the same position—to a position near the rear of actual operations; and, except for enterprise that takes the form of fiction, the correspondent becomes, so far as any immediate publication is concerned, little more than an official chronicler.*

### World War II

That there is a great deal of truth in this summation is not to be denied. On the other hand, it signally fails to allow for the personal quality which distinguishes one writer's work—however meager and restricted the quantity—from that of another. It is this personal quality, that the most accomplished type of writer manages to infuse into his work, which distinguished the dispatches of such

men as Philip Gibbs and Ward Price, in World War I, and made the names of Mark Watson of the *Baltimore Sun*, Russell Hill, Jack Belden, and Christopher Buckley of the London *Daily Telegraph*, trusted and familiar to so many responsive readers, in the respective countries, throughout the world conflict of 1939-45. In a class by himself, the great little Ernie Pyle, writing with homespun simplicity, that combined perfect understanding and sympathy with an unerring eye for a good "story," probably did as much to help sustain the morale, both of the home folk and of the fighting man, as any other writer in the field. He and his like would have done even more had not the, sometimes, rather exaggerated demands of "security" withheld from publication the names of units and formations that had particularly distinguished themselves, long after the enemy had become fully acquainted with them. Even allowing for the fact that in these days of radio telephony and wireless telegraphy, the only news that matters is the news that must temporarily be withheld, security is inclined to be a little self-important and autothaumaturgical. Its minions have even been known to clamp their lips together when asked the time.

Of course, in the last analysis, everything must depend upon the integrity and good sense of the war correspondents themselves. The writer who sees red-fanged disaster in a single batch of "walking wounded" is as little to be encouraged as the spiteful scribbler who seeks to

avenge fancied frustrations in the field by boiling out a volume of trumped-up, rancorous "revelations" the moment he is safely back within his own four walls.

### Democracy and the Press

Modern democracy insists that its press be on the spot to bear witness and render reports on any activity affecting the country's general welfare. It is, in wartime, only the newspaper correspondent who can give assurance of the well-being, the setbacks and the triumphs of the husbands, sons, and fathers who represent democracy in arms. It is a nice question how far beyond this primary obligation the responsibility of the war reporter can be said to extend. Is it for him to lay down the law with regard to strategy and tactics—and in so doing, perhaps, sow distrust of those officially responsible for strategical and tactical decisions? Or is his function just to report—with probity and fidelity—what he sees, without the addition of uninstructed and egregious comment?

All in all, since it is unlikely that the average war correspondent would be possessed of the training and experience to endow him with omniscience in matters military, it would seem that to confine himself to factual reporting of the day-to-day events of a campaign would be for him to tread the genuine path of wisdom. And the lamp of an intelligent and sympathetic censorship-cum-security-cum-public-relations service will very often help to light him on the way.

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Authors submitting materials to the MILITARY REVIEW are requested to forward manuscripts through the Security Review Branch, Office of Public Information, Office Secretary of Defense, The Pentagon, Washington 25, D. C.

# CONTROL OF THE ARMY BUDGETARY PROCESS

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*The views expressed in this article are the author's and are not necessarily those of the Department of the Army or the Command and General Staff College.—The Editor.*

THE ideological threat of communism has existed since the Bolshevik Revolution in 1917, but since World War II the menace has also become one of armed aggression. With the advent of jet aircraft, the distance between nations has been shortened. The possible use of atomic weapons makes the thought of war more terrifying than ever before. A new kind of problem now faces the American nation—a problem which in her 175 years of existence she has never known; namely, there is in the world today a power, antagonistic to democratic ideals, which is capable of bringing war to the American nation within her own borders.

American foreign policy in recent years has been largely dictated by the threat to our national security. We have shown other nations of the world that we are willing to fight for our beliefs. We have seen that we must befriend as many nations as possible, so that if and when "hot war" does come, we will be in a strong military and economic position. The occasions of our assistance to other nations have been numerous. The European Recovery Program, arms and dollars to Greece, and the American troops in Korea are but a few examples of our support to other nations. The threat of communism poses a dual problem of resistance to

war and preservation of a democratic form of government in the United States.

Within the United States one of the threats of "being less free" is found in the possible loss of civil control over the military. The Army must be large and strong enough to attain victories in "limited wars," such as Korea—should the need occur—and there must be a reserve behind the Army, ready to fight an "all-out" war. However, to ensure democracy, the military must be subordinated to civil control.

What controls does the United States as a democracy possess by which to maintain civil control over the military? One answer, of course, is found in the Constitution. The President wages war; the Congress declares war. The President presents a budget for military needs, and the Congress must pass it. The President is Commander in Chief of the Armed Forces, and the Congress is charged with the responsibility of making "rules for the government and regulation of the land and naval forces." The judiciary acts as an umpire between the President and Congress and as a restraint upon them. Although the Supreme Court cannot review decisions of courts-martial, it can pass judgment on the constitutionality and jurisdiction of the military court.

## The Constitution

The framers of the Constitution little realized that they were initiating a curious circular process. The philosophies they expounded in the Constitution have been complemented and amplified by the

growth of institutions, which, although unmentioned in the Constitution, have made the American democratic system workable, and have given it additional strength. For example, one of the overriding concepts of American Government is expressed in Lord Acton's often quoted statement that "All power corrupts, but absolute power corrupts absolutely." At every point in the system where power might exist, the framers attempted to restrain it. Some of the power of the National Government was conceded to the state governments, but the concept of federalism restrained the power of the state governments. In the course of American history the rise of political parties—also unmentioned in the Constitution—and the peculiar form which they have taken, have been a restraint upon usurpation of power by strong minority groups. Thus, extraconstitutional features have strengthened the principle of separation of powers. A second political theory expressed by the framers was civil control of the military. Separation of powers—the checks and balances of the democratic system—is an integral part of civil-military relations. The check and balance system restrains any one branch of our Government from gaining control of the military, but there has arisen, during the growth of the nation, additional methods to carry out this control. The principal way to strength for the military is through

appropriations process, which provide for civil control of the military: the Bureau of the Budget (BOB) and the Army budgetary process itself. In the former it will be shown how the BOB has grown to be one of the most significant and influential agencies of the President and thus exercises considerable civil control of the military. In the latter, by describing the Army budgetary process, it will be illustrated how the various echelons of the military control those budget estimating agencies within their jurisdiction.

### Evolution

The BOB has derived its power and influence through many Executive Orders and Acts of Congress, and each Executive Order and Act has furthered the scope of power of the Bureau. The BOB has grown to be one of the most significant and influential agencies of the President. Although all Government agencies are under the jurisdiction of the BOB by virtue of these orders and acts, it should be borne in mind that the Department of Defense is one such agency.

Until 1923, there was no formal federal budgetary machinery in the United States. But the turn of the century had seen the rise of corporations and their detailed accounting systems. Municipalities soon started a movement for better public financial systems, and, in 1915, Maryland became the first state to pass budgetary

***The scope of power of the Bureau of the Budget, and the Army budgetary process are two extraconstitutional features of American Government which strengthen the concept of civil control of the military***

the appropriations process. Without the necessary funds, the Armed Forces are inoperative. The military budget program is initiated by the President, and the appropriations are approved by the Congress. The purpose of this article is to illustrate two extraconstitutional features of the

legislation which took the form of an amendment to their constitution. Within a few years a great many states had followed suit.

The Federal Government's lack of monetary and fiscal control produced dissatisfaction in the citizens. Deficiencies in the

accounts of Government agencies were common during the period of 1879-1917, and Congress was forced to make up these deficiencies with additional appropriations. Each bureau had its own fiscal and accounting procedures.

During World War I, flexible financial measures were necessary since victory was of prime importance; the cost of war was secondary. Congress lost part of its constitutional power of holding the purse strings by authorizing lump-sum appropriations, and the Congress allowed agencies to obligate more than their actual appropriations.

For a complete understanding of any budgetary discussion, it is essential that the reader be introduced to a few terms peculiar to fiscal operations. The word "appropriation" means an authorization contained in an Act of Congress to make obligations. An "obligation" is the amount of money owed in payment for goods and services in the future. When a contract is signed, the money is then said to be "obligated." An "expenditure" is the occurrence of a liability on the part of an agency whether the bill has been rendered or not and whether payment has been made or not, and a "disbursement" is an actual outlay of cash.

#### Act of 1921

The downward trend in federal fiscal procedures ended with the passage of the Budget and Accounting Act of 1921. One of the most important sections in this Act (201) charged the President with the responsibility of transmitting the budget to Congress on the first day of each regular session. In another section the Act established the BOB which was authorized

to prepare the budget for the President. The BOB was directed to:

*Make a detailed study of the departments and establishments for the purpose of enabling the President to determine what changes should be made in the existing organizations . . . in the appropriations . . . and in the assignment of activities to services.*

The BOB was empowered to gather information it would need to carry out the above functions. The Bureau, however, was to be a section of the Treasury Department. In a discussion of civil-military relations and the military appropriations process, it is interesting to note that the first two Directors of the BOB held military rank: General Charles G. Dawes and General Herbert W. Lord.

While the Budget and Accounting Act of 1921 had established the BOB, its functions were never clearly defined. However, some 18 years later—in 1939—Reorganization Plan I created the Executive Office of the President into which the ailing BOB was placed. The situation was further changed with the issuance in the same year of Executive Order 8428 which stated that the BOB was also empowered, in addition to preparing the budget:

1. To supervise and control the administration of the budget.
2. To conduct research in the development of improved plans of administrative management.
3. To assist the President by clearing and co-ordinating departmental advice on proposed legislation.
4. To keep the President informed of the progress of activities of the Government.

In effect, the President delegated to the BOB the authority given him in the Budget and Accounting Act of 1921.

Further legislation in 1942 authorized the Director of the BOB to be the co-ordinator of all questionnaires sent out

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by federal agencies. Three years later—in the Government Control Act of 1945—the Bureau's scope of power on budgetary matters was increased to include jurisdiction over those corporations entirely owned by the Government. Each such corporation was directed to submit a budget program to the President through the BOB.

### Hoover Report

In 1947, the Hoover Report on the Reorganization of the Executive Branch of the Government was published. The Commission noted that the budget did not report accurately the costs of activities and that the budgeting methods used did not account for the degree of efficiency with which the money was spent. The Commission recommended a performance-type budget. The Commission further recommended that notice be taken of the fact that the President need not spend all the money appropriated by Congress.

Partly as a result of this report, the National Security Act of 1947 was amended 2 years later—in 1949. The amendments stipulated that the Armed Forces use the performance-type budget by Fiscal Year 1952. This Act—the National Security Act Amendments of 1949—established a Comptroller for each of the military services. The Comptroller occupies a position of great importance since upon his shoulders falls the job of formulating the budget for his service. Also during 1949, Executive Order 10072 was published. This authorized the Director of the BOB to assist the agencies in establishing a management improvement plan and an award system.

The most important piece of budgetary legislation in the past 30 years has been the Budget and Accounting Procedures Act of 1950. The word "performance" is not mentioned anywhere in the Act, but Section 102a, "The budget shall set forth . . . the functions and activities of the Government," has been interpreted to

mean a performance-type budget. The Act authorized the BOB to "assemble, correlate, revise . . . the requests for appropriations of the several departments." In Sections 104 and 105 it re-established the authority of the BOB to set up a management improvement plan and to have Government-owned corporations prepare business-type budgets. The distinction between a governmental budget and a business-type budget should be understood. In the former, agencies cannot obligate more money than they are appropriated by Congress, while a corporation—subject to economic fluctuations—must have flexibility in its budget, possibly in the form of "Reserves for Contingencies."

The General Appropriations Act for 1951 prescribed the procedure for the apportionment of appropriations by the Director of the BOB, and the Act also authorized him to establish budgetary reserves.

### Present Organization

The BOB—as it stands today—is the result of the legislation which is outlined above. The chart of the Bureau, on page 21, shows the present organization of the BOB. The Office of the Director co-ordinates the four offices and five divisions of the Bureau. The Office of Budget Review is self-explanatory. It plans, produces, and reviews the budget itself, the President's Budget Message to the Congress, and various economic analyses. It also maintains liaison with the Congressional Appropriations Committees.

The Office of Legislative Review is the spokesman of the President in the matter of lawmaking. This office advises congressional committees and Federal agencies on the subject of pending legislation and its relationship to programs and policies of the President.

Improvement within the Government organizational structure is the function of the Office of Management and Organiza-



tion, which also maintains liaison with the appropriate congressional committees.

The Office of Statistical Standards coordinates the Government agencies. It attempts to eliminate duplication in collecting information by and for Government agencies. It is this office which has the jurisdiction over most forms used by the Government.

It has been shown that the scope of functions of the BOB is wide and varied. The areas over which the BOB has authority in the operation of the Federal Government include—in addition to budgetary review—the management, the operation, and the very functions of the individual agencies. Although it is a relatively new section of the Executive Office of the President, the BOB in a few years has become one of the most influential agencies because of its large span of control and areas of responsibility. Its power stretches out like the tentacles of an octopus. No agency escapes its purview.

In addition to the civilian control over the military by the BOB, the military, within its own echelons, has its own checks and balances to ensure control of its fiscal and monetary procedures.

The Army is a complex phenomenon. In numbers of men it is the largest organization in the Federal Establishment. Any numbers, so rigidly disciplined, pose a problem of safeguarding the internal security of any country, and the potential strength in terms of the capabilities of the men and matériel demand that a close check be maintained on an Army Establishment.

In Fiscal Year 1953, 16.2 billion dollars was appropriated for the Army, which means that the Army spent 22 cents out of every tax dollar. In the proposed budget for Fiscal Year 1955, the amount of every tax dollar which goes to the Army has dropped to 15.5 cents, but the percentage of the total budget devoted to national security remains the same for

the 3-year period—68 percent. The cost of preparing the defense budget is gigantic. To produce the Defense Department budget alone for Fiscal Year 1955 cost taxpayers 30 million dollars—the size of the entire federal budget in the 1840s.

Comparing the 2 years, Fiscal Year 1953 and Fiscal Year 1955, it is interesting to note that the total annual budget has decreased 8.4 billion dollars and the Army's cut has been 6 billion dollars—or about 70 percent of the total reduction. During this time, however, there has been a cessation of hostilities in Korea and an emphasis on the buildup of the Air Force.

#### Preparation of the Budget

Preparation of the Army budget takes place in stages. While these stages are presented here in the order in which they occur, all phases of preparing the budget are in operation during the entire year. Thus, while the major commands were given the period of 28 April 1952 to 6 June 1952 to submit their estimates for Fiscal Year 1954, budget and finance officers were working all year on problems pertaining to the fiscal operation of their command.

Before examining how the Army formulates a multibillion dollar budget in 6 weeks and before analyzing the control of the military budget by the military, it is necessary to understand the framework in which the budget is prepared.

With the passage of the Budget and Accounting Procedures Act of 1950 and the consequent performance-type budget, the Army has divided its budget into eight major *appropriations*. Each appropriation is divided into *programs* which are designated by a code number in the budget in the hundred series such as 1100 or 1200. Programs are broken into *projects* which are indicated in the ten series (1110, 1120), and each project is divided into *subprojects* which are specified by unit digits (1111, 1112). For example, the



Military Personnel, Army, appropriation is broken into four programs: pay (1000), individual clothing of enlisted personnel (1100), subsistence (1200), travel (1300), and other personnel costs (1400). The pay of an Army officer would be classified as:

Appropriation: Military Personnel, Army  
Program: 1000 Pay of the Army  
Project: 1010 Pay and Allowances of Officers  
Subproject: 1011 Pay and Allowances of Commissioned Officers  
1012 Pay and Allowances of Warrant Officers

The Army has developed 16 primary programs in order to formulate a performance-type budget. They are easily confused with the budget programs. In this article the word "program" will refer to the subdivisions of the appropriation, and "primary program" will mean the 16 classifications which were referred to previously.

It is important to realize at the outset that the control exercised by the military on its own budget is the pressure exerted by a commanding officer or unit on a subordinate echelon to reduce an estimate. Coupled with this is the fear of the subordinate that the estimate will be questioned if it is too high.

The budget has its birth in the Army Program Guidance (APG), a document which correlates the primary programs with the budget programs and is prepared by the Secretary of Defense, the Secretary of the Army, the Joint Chiefs of Staff, and the technical and administrative services. In preparation of the budget for Fiscal Year 1954, the APG was issued 28 April 1952—some 15 months before the budget was put into operation—by the Secretary of the Army who had received his budget guidelines from the Secretary of Defense some 3 weeks earlier. Once the APG has been issued, the budget starts to take form. The APG—issued at Department

of the Army level—is sent to the 35 Overseas and Zone of the Interior Commands, which have approximately 6 weeks to deliver their estimates to the Department of the Army in Washington.

The major command headquarters request estimates from those installations within its jurisdiction after delivery of a technical guide to the Comptroller of each installation. Estimates are made by the various budget, finance, and fiscal officers of the post. The budgets are compiled by the Comptroller and passed on for the approval of the commanding officer.

The process described is a general outline for both Class I and Class II installations. A Class II installation prepares a second budget, which is forwarded to the Chief of the Technical Services in Washington, and the budget contains estimates for the laboratories.

At this level, budget preparation is a mechanical process, and no two installations have the same procedure for formulating their estimates. Only infrequently will revisions in the estimate be made. After the commanding officer places his approval on the budget for the installation, the estimates are forwarded to the major command headquarters.

Again—at the major command headquarters level—it is difficult to generalize the procedure followed. Estimates collected from the installations at the command headquarters are forwarded in triplicate. One copy is filed, the second is analyzed by the technical and administrative services, and the third is inspected by the examiners of the Command Budget Division. At the command headquarters level are found Budget Program Directors who take an active part in revising the estimate—which has now become a command estimate. The directors, together with the examiners, the Chief of the Budget Division, the Comptroller, and other staff members—those concerned with the budget—place primary emphasis

upon obligation trends, but they must keep in mind the changes in the primary and budget programs.

The time allotted to the major commands for consolidation and revision of their budget is approximately 2 weeks. The requirement placed on a commanding officer to justify his estimate before a higher authority forces him to familiarize himself with the programs of the proposed year. The commanding general and his staff hold a review, although most revisions have already been made. The command budget is then forwarded to the Department of the Army in Washington on five different forms.

The 35 Overseas and Zone of the Interior Command budgets are delivered to the Department of the Army by a command representative who stays on call in Washington to justify the estimates. The budgets are received by the Accounting and Budget Preparation Division, Office, Comptroller of the Army. The Budget Division and Budget Program Directors hold separate, but concurrent, reviews. In one section the Budget Division stresses the costs of operation; in another the Program Directors place their emphasis on the level of operation. The Budget Division compares—among other items—the estimate of the current year with that of the proposed year, checks the internal consistency between the commands, and analyzes the estimates with the APG in view. The Program Directors must be well versed on the program objectives and the desired level of operation so that the activities that are budgeted can be approved within the substantive framework of the APG.

At the end of these reviews informal conferences are held between the two reviewing boards and the command representative. Any differences of opinion are resolved before the Budget Advisory Committee (BAC) to which the command representative can appeal.

The BAC hearings are a milestone in the life of the budget. The members of the BAC include the Chief, Budget Division, Office, Comptroller of the Army, chairman; the four Deputy Assistant Chiefs of Staff (personnel, intelligence, operations, and logistics); the Assistant to the Chief of Staff for Civilian Component Affairs (only if civilian matters are under consideration); the Assistant Deputy Chief of Staff for Plans, and a representative from the Office, Chief of Army Field Forces (both of whom act as liaison and have no voting power). The BAC also prepares tentative plans based on approved programs and later helps in the justification of the estimates before higher authority. The BAC is responsible to the Chief of Staff, Army, through the Office of the Comptroller of the Army.

The agenda for the BAC hearing can be best described by quoting the *BAC Code of Procedure*:

(a) *The chairmen of the BAC will . . . request that the major command representative present a highlight statement. (. . . 10 to 30 minutes. . . )*

(b) *. . . questions of a general nature will be in order. . .*

(c) *. . . the chairman . . . will proceed to take up, in order, the several recommendations with a view of obtaining decisions.*

The command representative does little arguing before the BAC but leaves the fate of the command budget to the Budget Section.

#### Reductions in Estimates

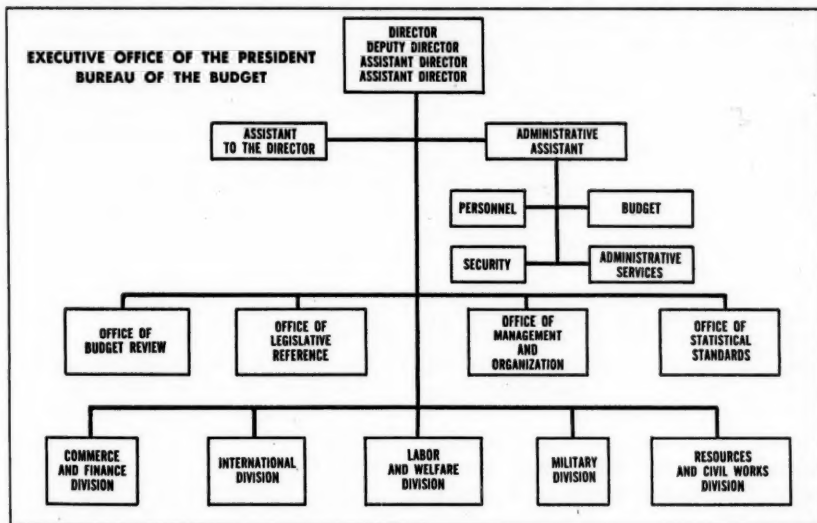
Reductions are usually made when the justification for the estimate is inadequately explained, when the justification is poor, or when the estimate is just too high, despite its being adequately explained. In this respect it is essential to the life of the program under consideration that the command representative—

who may speak in behalf of the justification of the estimate—be qualified and competent. Commands do not like reductions in their estimates. Their position is that either the reduction be made from another command or their own program be reduced. They have received the program directive, and the estimate is their honest opinion of the minimum amount of money needed to accomplish their program

the Secretary of the Army since the only available data gives an over-all Office of the Secretary of Defense reduction rather than separate ones for the Secretary of the Army and the Secretary of Defense.

#### Secretary of Defense

The Office of the Secretary of Defense holds joint reviews with the BOB. Like the BAC hearings, the joint reviews an-



properly. No attempt is made by the BAC to pull apart any of the programs. Rather the BAC reduces those estimates which do not seem to be justified by their programs. After the command representative is excused, the committee goes into executive session where the actual reductions are discussed—appropriation by appropriation. The amount of time available and the analysis form used are two of the limitations on the BAC.

The budget—after review by the BAC—is presented to the Army Chief of Staff, the Secretary of the Army, and then to the Office of the Secretary of Defense. It is difficult to analyze reductions made by

analyze the budget appropriation by appropriation. By now, 4 months have passed since the APG has been issued, and alterations in national defense policy may necessitate changes in the budget. Reductions of the budget at this level are made when the joint committee considers the estimate to be waste. The Army, being so close to their operation—like all other agencies—may tend to lose sight of the entire operation. Three months after the start of the joint review by the Office of the Secretary of Defense and the BOB, the final estimate of operating the Army Establishment is formally submitted to the BOB.

### Bureau of the Budget

The BOB—which has all the estimates—scrutinizes the budget. Going over each program appropriation, the Bureau tries to find ways of operating the Army for less money. When the experts are satisfied, they submit the budget to the President to be incorporated into his budget message to the Congress during the first week of January of each year.

Since the purpose of this article is to show how the Army controls the preparation of its budget, it is unnecessary here to describe Congressional review. Furthermore, revision by the Congress is a constitutional restraint. It will, therefore, be sufficient to say that scrutiny by members of Congress is exhaustive. The budget enables Congress to criticize and secure revision of the future policies and practices of the administration.

A description of the control of the Army budgetary process would not be complete without a brief reference to the way in which the Army actually disburses the appropriations. In this process additional control by the Army exists.

During the months of April to June, the Budget Division, Office, Comptroller of the Army, prepares to execute the budget through its funding program. Major commands are given the latest Congressional data to enable them to plan to execute their appropriation, which may be considerably different from their original estimate. The funding programs are compiled by the Budget Division, submitted to the Office of the Secretary of Defense for revision and approval, and forwarded to the BOB. On 1 July of the new fiscal year, the major commands announce the First Quarter Allotments to the field installations. The final part of the cycle of policymaking to checkwriting is complete. Thus, downward pressure has been exerted throughout the system. Every time the budget is consolidated, every time one stream of water joins another,

the mechanics of the dam are prepared to exercise control. In view of the foregoing resume, it can safely be concluded that a great deal of control exists within the Army in preparing its part of the Federal budget.

### Conclusion

The scope of the power of the BOB and the Army budgetary process itself are two extra constitutional features of American Government which strengthen the constitutional concept of civil control of the military. The combination of constitutional restraint and extraconstitutional checks may seem to control sufficiently the Army budgetary process. However, while this conclusion may be drawn, it must be done so with one major problem in mind—a problem which the Army budgetary process itself poses. The problem is cited first to stimulate thought and second to show the complexity of the problem of control of such a process.

The military man is a professional man. Like a doctor or lawyer who knows what is best for his patient or client, the professional soldier knows better than his civilian authority how to wage an offense or how to construct a defense. This does not mean that the military man necessarily knows what is the best defense *policy*. Rather, after the defense policy has been determined, the opinion of the professional military man, the specialist, should be accepted. In the middle of the twentieth century, America finds herself in an age of "power politics" and "cold wars," which present problems which are enormous, global, and essentially diplomatic. Determining these diplomatic policies is not the prime concern of the military man. This distinction between policy and strategy—in the military sense—should and must be understood.

It has been shown that many checks exist once the APG has been issued. True, many of these checks are military checks,

but many others are civilian restraints, and these latter restraints are necessary if there is to be civilian control of the military. The assumption throughout this article has been that revision and reduction, when made, have been justified, warranted, and, therefore, correct. When the BOB exercises its wide control, does the Bureau realize the effects of its reductions? And to carry the argument one step further—into the echelons of the Army itself—can a member of the BAC judge better than the Commanding General of Fort Dix what the monetary needs of the Fort will be if a certain primary program is to be accomplished?

If all military men were able to answer the above questions in the affirmative, the problem could be left in the "ivory towers" of academic discussions. However, all military men cannot. High-ranking Army officials admit to the existence of padded estimates, and these same officers corroborate the fact that estimates may be reduced by an echelon without realizing what the effect will be. However, these reductions are often made because the echelon feels that the estimate is padded or because the scope of a primary program has been reduced. The problem then comes down to the following questions: Does the higher authority realize the effects of a reduction? To what extent, if any, are lower echelon estimates padded in order to negate the effects of reductions in the estimates? And how often are programs damaged by reductions in funds?

It may be concluded, with one reservation, that there exists both civil and military control of the Army budgetary process. Restraint by the BOB exists because of its wide and varied powers which have been given to the Bureau during the years of 1921-51. In addition, the military itself places a large number of checks on its budget before it is presented to the Office of the Secretary of Defense. But the reader may be easily misled for the problem is not as simple as it may seem. It has been shown that the problem of the Army budgetary process has its own inner problems. Prior commitments—such as the appropriation for National Rifle Practice—play a relatively small but important role in complicating the inner problems. These commitments are part of the annual Army budget, although the amount of money to be obligated is fixed and is outside the jurisdiction of the budget estimating agencies.

To come to a conclusion about the extent and effectiveness of the Army budgetary process control is difficult. It must be realized that the exercise of control upon such a complex process is, in itself, difficult. It should also be realized that "inner" problems do exist—for example, padded estimates could make exterior control largely ineffective. However, if these problems are kept in mind, it may then be concluded that there is extensive extra-constitutional control of the Army budgetary process, not only by civilian authority but also by the military itself.

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**Managing the Army, or any of its activities, is simply the process of conducting the business of the Army with special attention to the utilization of resources.**

*Lieutenant General George H. Decker*

# COMMAND AND COMMAND RELATIONSHIPS

Lieutenant Colonel Kyle F. Davis, *Artillery*  
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*The views expressed in this article are the author's and are not necessarily those of the Department of the Army or the Command and General Staff College.—The Editor.*

**B**ELIEVE it or not—to paraphrase Ripley—the most important term used in the exercise of military authority is not concisely defined. Neither United States Statutes nor United States Army Regulations will yield a single source establishing the elements of command. Similarly, most of the related words such as co-ordination, delegation, and direction—all of which are variously used, misused, and abused in describing functions—are not adequately defined. This has not proved a serious handicap in subdepartmental levels of command principally because:

1. Channels are generally simple and direct.
2. Concise directives exist for most command actions.
3. The orders establishing a command generally establish limitations to the exercise of authority and clarify the relationships that will exist.
4. Finally, there is precedence for almost every command action. The exercise of command at such levels is so well known that the practitioner following precedence is seldom challenged in his concept.

Although the lack of adequate definition has not constituted a serious problem in subdepartmental levels, it has been and

continues to be a recurring handicap at national level. Failure to define "command" with its related terms and to consistently describe the authority of top officials in such terms has perennially created confusion and placed unnecessary burdens upon the leaders of our defense organization.

Early United States military history indicates that it created dissension and materially retarded Army development for almost 100 years. The conflict revolved around the authority of the Secretary of War, the authorities of the bureau chiefs—principally The Adjutant General, who was also a military man—and the Commanding General of the Army. The first step in the resolution of the conflict was achieved by the General Staff Corps Act of 1903.

The Secretary of War was established as the head of the War Department and the Commanding General of the Army was redesignated as Army Chief of Staff. In addition, the law established the basis for the present General Staff system and reduced the authority of the bureau chiefs. Subsequent legislation and interpretation of the statutes over the succeeding years completed the transition to the present organization with the operating bureaus becoming the Special Staff. In a sense, the conflict resulting in the establishment of the General Staff brought recognition of the concept of unity of command and the concept that command includes administration. Under the old system, the Com-



manding General of the Army had no authority over the various bureau chiefs and, hence, had no authority over the administration of the Army which he theoretically commanded—subject to the authority of the Secretary of War. In his new role as Chief of Staff he dropped a titular position and assumed real authority as the principal assistant of the Secretary of War. Subordinate to the authority of the Secretary of War he controlled the administration of the Army as well as its operations. For the first time he was able to bring together all the factors that are necessary in building a modern army. To make a simple analogy, the Chief of Staff now had both reins of the steed and was able to drive it under the authority of the President and Secretary of War wherever United States policy might designate.

#### The National Security Act of 1947

More recently a similar situation was created by failure to state clearly the authority and position of the Secretary of Defense in the National Security Act of 1947. Instead of establishing the Secretary of Defense as the head of the Department of Defense with complete authority over its activities, the law only established his duties and implied his authority:

*Under the direction of the President and subject to the provisions of this Act he shall perform the following duties:*

1. *Establish general policies and pro-*

***We must establish the principles of command and other degrees of authority in clear terms if we expect our future commanders to know the proper acceptance of responsibility and application of authority***

*grams for the National Military Establishment and for all of the departments and agencies therein.*

2. *Exercise general direction, authority, and control over such departments and agencies.*

3. *Take appropriate steps to eliminate unnecessary duplication or overlapping in the fields of procurement, supply, transportation, storage, health, and research.*

4. *Supervise and co-ordinate the preparation of the budget estimates of the departments and agencies comprising the National Military Establishments; formulate and determine the budget estimates for submittal to the Bureau of the Budget; and supervise the budget programs of such departments and agencies under the applicable appropriation Act, provided, that nothing herein contained shall prevent the Secretary of the Army, the Secretary of the Navy, or the Secretary of the Air Force from presenting to the President or to the Director of the Budget, after first so informing the Secretary of Defense, any report or recommendation relating to his department which he may deem necessary; and provided further, that the Department of the Army, the Department of the Navy, and the Department of the Air Force shall be administered as individual executive departments by their respective Secretaries and all powers and duties relating to such departments not specifically conferred upon the Secretary of Defense by this Act shall be retained by each of their respective Secretaries.*

#### The Hoover Commission Report

Failure to state that the Secretary of Defense was a commander subordinate to the President, or a deputy commander to

the President, precluded the establishment of a clearly defined chain of command and severely affected the efficiency of the entire Military Establishment. Greater damage was not done only because of the high character and caliber of the men assigned



to the key defense positions. In establishing Government organization political considerations, absence of a system to keep Government organization under constant review, lack of adequate Presidential authority to reorganize the Government and expediency have repeatedly forced compromises that violate the basic principle of organization—there must be unity of command. In the development of the National Security Organization fear of militarism was a contributing factor. The Hoover Commission (Commission on Organization of the Executive Branch of the Government) in its Report on the General Management of the Executive Branch in 1949 found:

*The line of command and supervision from the President down through his department head to every employee and the line of responsibility from each employee of the Executive Branch up to the President, has been weakened, or actually broken, in many places and in many ways.*

In order to ensure unity of command at departmental level, the Commission recommended:

*That the service secretaries be deprived of their privilege of appeal over the head of the Secretary of Defense; that they be directly and exclusively responsible to him; that the Secretary of Defense be the sole*

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*agent reporting to the President; that the service secretaries, to clarify their positions, be designated the Under Secretaries for Army, Navy, and Air Force.*

\* \* \* \* \*

*That specific provisions be made that the three military services shall be administered by the several under secretaries subject to the full direction and authority of the Secretary of Defense.*

Having made some progress in clarifying the authority and position of the Secretary, the Commission then—as if not knowing what to do about the Joint Chiefs of Staff—qualified its recommendations. The Joint Chiefs of Staff was still new and created conditions and situations in which experience was lacking.

Decision in this area was complicated by the opposing factors of ensuring adequate civilian control on the one hand without impairing military efficiency and planning on the other. In an attempt to establish the relationship of the Joint Chiefs of Staff to the Secretary and the service secretaries the Commission recommended:

*That there shall be Joint Chiefs of Staff representing the three services, appointed by the President and subject to confirmation by the Senate and that the Secretary of Defense, with the President's approval, shall appoint a chairman to preside over the Joint Chiefs of Staff and to represent, and report to, the Secretary of Defense.*

This implied that the Secretary would only have representation of the most vital agency for planning joint military effort in time of war.

The agency which would bear the major responsibility for the effort necessary in the direction of joint forces was not established by recommendation under the head of the department. Neither was there an adequate proposal for clarifying the relationships between the service secretaries and the Chiefs of Staff. In an attempt to spell out the authority of the Secretary—

as if it recognized that it had still fallen short of clear definition and had weakened or left a doubt as to his authority—the Commission went on to recommend:

*That all administrative authority be centered in the Secretary of Defense, subject only to the authority of the President, including full and final authority over preparation of the military budget and over expenditures of funds appropriated by the Congress.*

*That the Secretary be provided with an Under Secretary of Defense, who shall be his full deputy and act for him in his absence, and three assistant secretaries; and that the Secretary of Defense be empowered to set up such personal assistants to himself as he shall require to relieve him of day-to-day detail, to advise and assist him in planning and carrying out programs, and to organize this staff as he sees fit.*

*That full authority for the procurement and management of supplies and matériel be vested in the Secretary of Defense.*

While the Commission's recommendations were a sound step forward, if implemented, they fell short of clarifying the situation. In a roundabout way it had recommended that the law be revised in such a way as to imply that the Secretary of Defense would be the Commander of the Department subject to the direction of the President as the Commander in Chief. There were still areas of uncertainty and a basis for contention particularly in the relationships of the Joint Chiefs of Staff to the civilian secretaries. The Commission had diagnosed the illness as a violation of unity of command but had not prescribed the full remedy.

In the National Security Act Amendments of 1949, Congress took limited cognizance of the findings and recommendations of the Hoover Commission. The position of the Secretary of Defense was substantially clarified by designating his

powers and authority rather than describing the duties which he would perform as the Act of 1947 had done. Section 5 of the new Act amended Section 202 of the original Act and provided:

*The Secretary of Defense shall be the principal assistant to the President in all matters relating to the Department of Defense. Under the direction of the President, and subject to the provisions of this Act, he shall have direction, authority, and control over the Department of Defense.*

\* \* \* \* \*

*The Departments of the Army, Navy, and Air Force shall be separately administered by their respective Secretaries under the direction, authority, and control of the Secretary of Defense.*

\* \* \* \* \*

*The Secretary of Defense may, without being relieved of his responsibility therefor, and unless prohibited by some specific provision of this Act or other specific provision of law, perform any function vested in him through or with the aid of such officials or organizational entities of the Department of Defense as he may designate.*

#### The Rockefeller Committee

President Eisenhower was intimately acquainted with the National Security Organization at the time of his inauguration. Accordingly, he authorized Charles E. Wilson—his Secretary of Defense—to take immediate steps toward its reorganization. To accomplish this, the Rockefeller Committee conducted a comprehensive organizational survey and on 11 April 1953 reported:

*A major step . . . was taken with the passage of the National Security Act, which was intended to (1) provide through the Secretary of Defense a central organization for the exercise of direction, authority, and control over the entire Department of Defense, in order to establish policies*

and to assist the President in carrying out his responsibilities and functions as Commander in Chief; and (2) set up a decentralized organization for administration through the three military departments.

\* \* \* \* \*

The organization and procedures of the Department of Defense need to be improved in order to attain four compelling objectives:

1. The lines of authority and responsibility within the Department must be made clear and unmistakable.

2. The Secretary of Defense must be able to clarify the roles and missions of the services.

\* \* \* \* \*

The Department of Defense cannot now attain these four objectives in full. They can be attained only if, by the necessary statutory amendments and necessary changes in organization and procedures, the Secretary of Defense is given the following tools of sound management:

1. Clear and effective authority over the entire defense organization, and control over the principal personnel—civilian and military—in the Department of Defense.

2. A system to provide him with complete, accurate, and understandable information on which to base decisions.

3. An independent audit of programs and of efficiency of performance, by physical inspections where necessary.

With the aid of such tools and with the support of the President and the Congress, the Secretary can carry out the recommendations below. The purposes of these recommendations are, in summary, as follows:

1. To clarify the authority of the Secretary of Defense.

2. To clarify the command channels within the Department, especially to strengthen the status of the Secretaries of the military departments.

Having established the objectives and the criteria upon which it felt the reorganization should be effected to establish unity of command, the Committee recommended:

The direction, authority, and control of the Secretary over all agencies of the Department, including the three military departments, which should continue to be separately organized for effective administration, should be confirmed by decisive administrative action, and, if necessary, by statutory amendment.

The Secretary of Defense exercises his authority under the National Security Act subject to the overriding authority of the President as Chief Executive and Commander in Chief. . . .

\* \* \* \* \*

The Secretaries of the military departments, subject to the direction, authority, and control of the Secretary of Defense, should be the operating heads of their respective departments in all aspects, military and civilian alike.

\* \* \* \* \*

The Secretaries are the principal civilian advisors to the Secretary of Defense on the entire range of problems within the Department.

The Secretary of each military department carries full responsibility for the administration of his department.

The Committee believes that . . . it is essential to have single channel of command or line of administrative responsibility within the Department of Defense and each of the military departments. It does not believe that it is possible (for administrative purposes) to make a sufficiently clear distinction between military affairs on the one hand, and on the other hand civilian affairs (such as political, economic, and industrial affairs) to serve as a practicable basis for dividing responsibility between military and civilian offi-

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*It is essential to keep in mind that the Joint Chiefs of Staff were established as a planning and advisory group, not to exercise command. The National Security Act emphasized their planning and advisory role. . . .*

*To clarify the role of the Joint Chiefs of Staff in accord with the basic purposes of the National Security Act, this Committee recommends below that the Key West Agreement be revised to remove the command function from the Joint Chiefs of Staff, in order to enable them to work more effectively as a unified planning agency.*

\* \* \* \*

*While the purpose of the chiefs should be to reach an agreement on what is right and best to do in the national interest, their primary joint role is that of advisors to the Secretary of Defense and the President.*

#### President Eisenhower Acts

Following the report of the Rockefeller Committee, the President prepared and submitted Reorganization Plan Number 6 of 1953, to Congress. The Reorganization Plan provided the Secretary of Defense with an adequate staff for the performance of his functions and abolished the committee-type organizations that existed. In his message to Congress, the President made the following points which clearly establish the Presidential interpretation of the authority of the Secretary of Defense:

*With my full support, the Secretary of Defense must exercise over the Department of Defense the direction, authority, and control which are vested in him by the National Security Act. He should do so through the basic channels of responsibility and authority prescribed in that Act—through the three civilian Secretaries of the Army, Navy, and the Air Force, who are responsible to him for all aspects of*

*the respective military departments (except for the legal responsibility of the Joint Chiefs of Staff to advise the President in military matters). No function in any part of the Department of Defense, or in any of its component agencies, should be performed independent of the direction, authority, and control of the Secretary of Defense. The Secretary is the accountable civilian head of the Department of Defense, and, under the law, my principal assistant in all matters relating to the Department. I want all to know that he has my full backing in that role.*

\* \* \* \*

*The provision of the Key West Agreement, under which the Joint Chiefs of Staff designate one of their members as an executive agent for each unified command, has led to considerable confusion and misunderstanding with respect to the relationship of the Joint Chiefs of Staff to the Secretary of Defense, and the relationship of the military chief of each service to the civilian Secretary of his military department.*

*. . . the Secretary of Defense, with my approval, is revising the Key West Agreement to provide that the Secretary of Defense shall designate in each case a military department to serve as the executive agent for a unified command. Under this new arrangement, the channel of responsibility and authority to a commander of a unified command will unmistakably be from the President to the Secretary of Defense to the designated civilian Secretary of a military department. This arrangement will fix responsibility along a definite channel of accountable civilian officials as intended by the National Security Act.*

\* \* \* \*

*The Joint Chiefs of Staff, as provided in the National Security Act of 1947, are not a command body but are the principal military advisors to the President, the National Security Council, and the Secretary of Defense.*

It is interesting to note that the reorganization plan did not, in itself, elaborate on the functions and authority of the Secretary of Defense. The reorganization was to be accomplished principally by abolishing existing committee-type agencies, transferring their functions to the Secretary of Defense, and giving him authority to reallocate the functions to additional assistant secretaries. The balance of the reorganization was to be carried out within the Executive Branch by means of Executive Orders, administrative regulations, and revision of the Key West Agreement. In following the recommendations and findings made by the Hoover Commission, the Rockefeller Committee, and, finally, the President, it becomes inescapably evident that a large part of the problem had been in the interpretation of the law. There is no alternative but to believe that somehow the drafters did not translate into words the concept they wished to establish or else they were not completely sure of the concept.

The Rockefeller Committee apparently accepting the former alternative considered it "unfortunate that this concept (concept of the Joint Chiefs of Staff as a planning and advisory group) of the National Security Act has always been obscured in actual practice. . . ." If we can accept the belief that the drafters were convinced of the concept, it becomes necessary to accept the plain fact that the law in this respect did not describe the concept. Accordingly, to that extent it was poorly drafted. Section 2 of the Army Organization Act, for instance, is devoted to establishing definitions upon which the concept of the Act depends. An understanding of these terms ensures a clear understanding of the concept.

Similarly, definition in the National Security Act might have been expected to ensure a clear understanding of the concept intended.

### Key West Agreement Revised

According to a Defense Department press release on 16 January 1954, the Key West Agreement has been revised as directed by the President. This action establishes—for the present at least—a continuous chain of command from the President down to the soldier on the gun. Borrowing from the superb work of Major General Otto L. Nelson, Jr., we might say "command and its handmaidens, authority and responsibility, reside in one man at each echelon in the chain of command." Although not the subject of this article, it is added here that there is firmer assurance of the civilian control concept than at any time in our history. At the same time, as practices to support the concept become firmly established, there is promise of greater assurance that United States military leaders will be able to apply their talents with greater security from political acrimony and the near vilification that has recently been directed at military "brass."

### Need for Definition Remains

In consideration of the factors outlined above, it is easy to visualize the problem of a United States Army officer explaining to a foreign officer the positions and authority of the Secretary of Defense, the Secretaries of the military departments, and the Chiefs of Staff. The lack of adequate definitions is a great inconvenience, particularly if the concept of the terms involved are not synonymous in both languages.

There are two approaches to the problem. One is to take a junket of legislative histories, committee reports, precedents, legal decisions, and detailed United States military history. The other is to establish a common definition that both parties understand. The author, in meeting this problem, has used the Navy definition of command that Brigadier General John R. Beishline in his *Military Management for*



*National Defense*, quotes from the Navy publication *The United States Navy*. The definition, as revised by the author, would be applicable for general use within the Department of Defense and is consistent with findings and recommendations of the Hoover Commission, the Rockefeller Committee, and, finally, the President. In fact, if we exclude the thinking that restricts command to military activities only, and accept it as a general functional description, it can find application in almost any organizational area. Following this trend of thinking it is then possible to carry it into the top level of Government and say that the members of the Cabinet under the President, as the Commander in Chief of the Government, are commanders of subordinate governmental organizations. The Secretary of Defense then becomes the Commander of the Department of Defense and the departmental secretaries become commanders of their respective departments.

The Joint Chiefs of Staff become a staff agency of the Secretary of Defense and a Chief of Staff co-ordinates the department staff and controls the forces of the department.

From the organizational viewpoint it makes no essential difference whether a civilian commands or a military man commands since the elements of command are equally applicable and especially since responsibility—the key element of command—exists in any event by law.

Similarly, the other key terms necessary in the exercise of authority which are ambiguous should and can be established. It is not inconceivable that a clarification of terms of authority and their consistent use throughout the Government would have far-reaching and beneficial effects in improving the over-all Government organization and management. If it is important to give special consideration to defining such terms as vessel, vehicle, and country in the

United States Code, it is manifestly more important to define the terms upon which national security depends.

Certainly the terms upon which the continuing and harmonious relations within the Military Establishment depend, and upon which the security of the nation therefore depends, should be indelibly inscribed in law.

### Definitions Proposed

The author, in his search for adequate means of describing the relationships that exist, and should exist, at all levels of command and authority, promotes the following definitions as satisfying the requirement for clarity if used consistently.

#### Command

Command is the authority established by law or regulations and exercised in accordance with such laws or regulations over units or individuals in all matters pertaining to the conduct and administration of military or naval affairs not specifically excepted by the establishing authority. The elements of command are:

1. Precedence over all personnel serving within the organization.
2. Responsibility for planning and coordinating the efforts of the units or individuals placed in the organization.
3. Responsibility for the actions of units or individuals placed in the organization.
4. The power to enforce official will by issuing directives and orders in conformance with laws and directives established by higher authority.
5. The authority to make inspections to ensure compliance with directives.
6. The initiation or application of authorized corrective and disciplinary measures incident thereto.

Responsibility is the obligation established by law or regulation concurrent with the granting of authority for the discharge of a duty. Thus, a commander is

a responsible official and is answerable by law or regulation for the discharge of his duties.

The responsibility elements of command, which are conferred upon the commander by laws and regulations above his authority, may not be delegated.

### *Direction*

Direction is used to indicate expressly the exercise of command in the name of the President. Thus, Presidential orders issued from a department are expressed "By direction of the President. . . ." It is also used in expressing the exercise of command on matters which are statutorily Presidential but which are delegated by the President in practice. The Secretary of Defense and the service secretaries, when exercising delegated Presidential authority, therefore, use the phrase stated above.

### *Control*

Control is a degree of authority that is less than command. It provides for the application of part of the elements of command. Responsibility exists with control but only with respect to the elements over which such control is exercised. This, of course, excludes the responsibility to stop illegal or wrongful acts. With the exception of the term "fire control," which is a technical term and should be treated separately, control may be divided into technical control and operational control when circumstances force the separation of the two elements.

Technical control is the authority exercised over units or organizations with respect to personnel management, supply, evacuation, services, and similar matters not included in the operational missions of such organizations.

Operational control is the authority exercised over organizations with respect to the composition of forces, the assignment of tasks and missions, the designation of

objectives, and the authority necessary to accomplish tasks and missions. It does not include the elements of technical control except when the subordinate commander requests assistance.

### *Staff Supervision*

Staff supervision, which describes the authority of staff officers, is the function of:

1. Advising other staff officers and individuals subordinate to the commander of the commander's policies and plans.
2. Interpreting those plans and policies.
3. Assisting subordinates in carrying them out.
4. Determining the extent to which they are being carried out and advising the commander thereof.

### *Co-ordination*

Co-ordination is the function of promoting and securing unity of effort toward the accomplishment of objectives by communicating proposals of command decisions to all interested agencies and adjusting or negotiating the differences to: establish a common proposal and a basis for decision by the commander; or ensure integrations of effort in the execution of a decision already made by the commander.

### *Summary*

Notwithstanding the fact that relationships in the Department of Defense have been substantially clarified, there still remains the need for official definitions upon which all future relationships may be established. To preclude conflict and ensure continuous harmonious relations at all levels, it is essential that such action be taken and that all relationships be established in such terms. In order to ensure proper usage and clear understanding, every officer must be indoctrinated with the meaning of authoritative terms and their effect on his actions. It



is not sufficient that officers learn command on a piecemeal basis. The learning by precedent and experience that command authority permits this action or that action is insufficient. Our educational system for young officers and our military literature—particularly such literature as the Department of Defense manual, *The*

*Armed Forces Officer*, must establish in crystal-clear terms the principles of command and other degrees of authority. How else can future commanders be expected to know the proper acceptance of responsibility and the proper application of authority unless they are told their meaning?

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## THE MISSION OF THE MILITARY REVIEW

The **MILITARY REVIEW** has the mission of disseminating modern military thought and current Army doctrine concerning command and staff procedures of the division and higher echelons and to provide a forum for articles which stimulate military thinking. Authors, civilian and military alike, are encouraged to submit materials which will assist in the fulfillment of this mission.

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# IT PAYS TO KEEP SCORE

Colonel Walter E. Sewell, *Infantry*  
Commanding Officer, 31st Infantry Regiment  
7th Infantry Division, Korea

*The views expressed in this article are the author's and are not necessarily those of the Department of the Army or the Command and General Staff College.—The Editor.*

THE average American likes his team to be at the top of the heap but recognizes that, in general, it must have a high score to get there. In any game of competition with a valid method of scoring he will strive for the points, he will accept the relentless results of arithmetic, and he will work toward doing better next time. But in a competitive situation, with no numbers to pass judgment, he is quite prone to claim supremacy for his own team. And he will do this with firm conviction, although this claim may be contrary to the opinions of others in position to make effective evaluations.

The military unit is a team by definition and by training, and the competitive spirit is an indispensable part of its morale. Competition between units can be carried too far, however, for the purpose of training is the general excellence of all units and not one superunit which beats all the others. This general excellence will be sought by the average unit provided it is defined in terms which are understood and accepted throughout the organization. Defining the terms or making the rules to fit the situation may require some experimentation—some trial and error—but the results are well worth the effort.

The quality of a unit depends fundamentally upon the aggregate contribution

of all its members. Most soldiers want to be a part of a good unit and are willing to make the necessary effort. In the Army the most immediate reward for effort is the self-satisfaction of belonging to a winning team—there is no comparable bonus for being better than the best. Consequently, if an outfit which is not really good is allowed to get by with its own evaluation of itself—and this will always be superior—further improvement cannot be expected. Moreover, there is a tendency on the part of units, and individuals in the unit, to belittle or discredit evaluations which are not favorable. Therefore, every commander can certainly profit by devising a scoring formula for his units which is accepted by all as fair, reasonable, and valid.

## The Formula

The problem of finding such a formula has no easy and no general solution. It is impossible to write down an equation which will fit every outfit and every situation. There is no one common formula, but there are certain characteristics which every formula of this type must possess.

*It must be as objective as possible.* Personal opinions and evaluations based on personal observations are a necessary and a desirable feature of command. They are, nevertheless, subject to criticism and suspicion in competitive situations—this is particularly true when the observations are made by members of the command. The further removed an inspector is from the unit, the more impartial he is considered; hence, objectivity derives from remoteness. Inspections by a higher echelon are generally accepted as valid be-

cause there is a feeling that everyone is subjected to the same treatment. Therefore, the ratings incorporated in the formula should, as far as possible, come from above.

*It must make the maximum use of statistics and arithmetic.* Numbers are impartial and everyone accepts the fact that 2 plus 3 equals 5—and that 5 is greater than 4. The surest way to avoid an argument is to base conclusions on arithmetic. Most soldiers believe in the science of numbers although it does not rate them highest, and simple graphs and charts are convincing although condemning.

*It must cover a reasonable period of time.* Units, like individuals, have their ups and downs—the score should represent their average. This does not mean that periodic inspections are not valid evaluations but they derive their validity from the fact that the height to which a unit can rise at a predetermined moment is indicative of the basic quality of the unit. For the commander, however—who is concerned with the day-in, day-out results—high quality over a long range is the desired criterion. Isolated evaluations do not tell the story and everyone knows it.

*It must cover the important functions.* The measure of the quality of a unit is essentially the degree of effectiveness with which it accomplishes its primary missions. Consequently, the items directly or indirectly connected with these mis-

over the less important. Weight should be placed on functions in relation to their contribution to the primary missions. The formula will then serve to direct attention to items in accordance with their importance. However, it must be kept in mind that every function and individual of an organization is there for a purpose and should be incorporated directly or indirectly in order to realize their potential contributions.

*It must encourage high standards but not discourage by demanding the impossible.* One of the main results to be derived from the formula is the establishment of high standards in the command. The point designated as superior determines how much is expected and deserves the commander's careful consideration. The standards should not be so low that everyone rates a "superior." On the other hand, superior should not be so high that everyone will feel that it is impossible to attain it and, hence, not even try.

*It must be fair and apply equally to every unit measured by it.* This is a very important point. Not too much objection will be raised to the theoretical perfection of the formula, provided it deals fairly with every unit. If any one unit can convince itself that it is being discriminated against, every loser will "alibi." Consequently, it is better to have two slightly different formulas—or at least different scales—for units of different

***In any competition with a valid method of scoring, the American soldier will strive for points, he will accept the relentless results of statistical arithmetic, and will work hard toward doing better the next time***

sions are the ones which deserve attention. A commander cannot afford to judge the quality of a unit on the basis of some eccentricity of his own, for fear of diverting the main effort from the primary objective.

*It must emphasize the more important*

categories than to subject any one unit to a formula not tailored to its pattern.

*It must be interpreted in the light of varying conditions and admitted facts.* Of course, the purpose of any formula is to provide a tool capable of general application, and too many exceptions will cast

# TRAINING COMPANY EVALUATION FORMULA

COMPANY \_\_\_\_\_ CYCLE FROM \_\_\_\_\_ TO \_\_\_\_\_

## INSPECTIONS (DIVISIONAL):

Note a: Numerical value of each inspection is as follows:

Superior ----- P 5 (P means plus)

Excellent ----- P 3

Satisfactory ----- P 1

Unsatisfactory ----- M 5 (M means minus)

Training : 5X average of all training inspections —

Mess : 3X average of all mess inspections —

Supply : 3X average of all supply inspections —

I & E : 2X average of all I & E inspections —

(X means multiplied by)

## MARKSMANSHIP:

Note b: N = number of trainees firing.

Expert : (Number of experts divided by N) X P100—

Sharpshooter : (Number of sharpshooters divided by N) X P 50—

Marksman : (Number of marksmen divided by N) X P 25—

Bolo : (Number of bolos divided by N) X M100—

## MILITARY SUBJECTS TESTS:

Note c: N = number of trainees taking test.

Pass: (Number passing divided by N) X P 35—

Fail: (Number failing divided by N) X M200—

## MISCONDUCT:

Note d: N = average number of trainees in company during cycle.

AWOL: (Number of departures divided by N) X M100—

Other: (Not connected with AWOL)

Summary Court (Number of cases divided by N) X M100—

Special Court (Number of cases divided by N) X M200—

General Court (Number of cases divided by N) X M300—

TOTAL SCORE =

doubt on its legitimacy; hence, the formula should apply in most cases. However, there will be exceptions and these exceptions should be recognized and treated as such.

*It must be accepted by all as valid and impartial.* This will often be a matter of considerable education and explanation on the part of the commander and his staff. Adoption on a trial basis with suggestions for improvement accompanied by frequent conferences and discussions will generally accomplish the desired result.

An example of such a formula for a training company is shown on page 36 entitled "Training Company Evaluation Formula."

The example is just one of many such

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formulas which would be applicable to a training company. The details will vary with the situation and the personalities involved, but the general pattern is essentially determined by the mission and the policies of higher headquarters.

In this particular case the formula was used by a regiment to rate the companies through their training cycles. It is interesting to note how it embodies the characteristics which have been enumerated here.

It is *objective* by virtue of the fact that it contains division inspection ratings rather than regiment or battalion. It is otherwise based on *statistics*. It covers a training cycle which is a reasonable and natural period of time. It includes the important functions of the unit—weighing them according to their significance. It encourages high standards without demanding the impossible.

It is fair to every unit in the same category and the ratings can be modified for different types of units. For example, a company in a short cycle cannot expect to attain as high a score as a company in a long cycle, nor can the score of a company with highly selected trainees be compared with that of a company with average trainees. Finally, the formula is acceptable to the vast majority as valid and impartial, and therein lies its fundamental contribution to the regiment.

In this age the quality of the individual soldier not only continues to be vitally significant, but becomes more important than ever. Proper use of the more complex instruments of modern war requires men of higher caliber. Now more than ever, the soldier must have high technical ability, intelligence, and initiative.

Necessarily, his training requires more time. Not only must he master the technical aspects of new weapons, but he must also be better prepared physically, mentally, and spiritually for the greater stresses of modern war.

*General Charles L. Bolte*

# NOTES ON DEFENSE

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*The views expressed in this article are the author's and are not necessarily those of the Department of the Army or the Command and General Staff College.—The Editor.*

AS A RESULT of new type weapons, the steady increase in fire power and greater mobility, tactics, and techniques applied on the field of battle have been in a continuous state of evolution throughout the ages. Defensive action has been no exception, and its evolutions have been the result of the changing means of combat and the tactical methods employed. However, the fundamentals of the defense have remained essentially the same, and defensive action in the future is likely to differ only in the emphasis placed upon the fundamentals as they are applied to a given situation. Modern warfare—with its greater mobility, increased destruction, and the greater range of weapons—has brought about this change in emphasis upon certain of the fundamentals of defense. When conditions prevent the commander from applying each fundamental to the maximum, he must determine which fundamentals can be sacrificed with least detriment to the accomplishment of his mission. In Korea, it was the application of these fundamentals which proved most difficult for the commander—for seldom did existing conditions permit maximum application of all the fundamentals.

The basic fundamentals which have remained unchanged throughout the ages are:

1. Proper utilization of terrain in the area to be defended.

2. Employment of security forces to prevent surprise.

3. Mutual fire support between elements of the defense—both laterally and in depth.

4. A reserve withheld from action—available for employment at a critical point in the battle.

5. Predetermined critical areas organized for all-around defense.

6. Defensive echelons organized in depth.

7. Fire plans which co-ordinate the fire of all available weapons at each echelon.

8. Barrier plans which integrate natural and artificial obstacles across the most dangerous avenues of approach.

9. Plans for launching counterattacks at a time most advantageous to the defender.

10. Flexibility, both in plans for the defense and in the attitude of the defender.

11. A determined attitude of the defender to deceive and destroy the attacking force.

Commanders in Korea were constantly faced with the problem of defense—whether to accept gaps for the sake of a reserve, or attempt to organize a thin line to prevent infiltration. As a result, either of a training deficiency, or lack of experience, many officers in the early Korean operations could not make a rapid determination as to how to organize for defense.

It is often said that "ideal" defensive situations were not frequently encountered in the Korean campaigns—that the tactics employed, the enemy encountered, and the terrain were not what we can expect in future warfare. In the initial



phases of the Korean conflict we found ourselves on the defensive pending a buildup of sufficient forces for offensive action. It is probable that future warfare may find us in an identical situation on a far greater scale. Certainly, initially we may lack sufficient manpower to defend on an ideal frontage. Conditions which deviate from the ideal force the commander to make variations in the application of the fundamentals of the defense. Under such conditions it may be impossible to organize a continuous battle-line. The available forces probably will not permit a compact defense with effective mutual fire support. Unless the commander can rapidly determine those fundamentals which must be emphasized—perhaps to the detriment of others—the defense may fail.

Perhaps ideal conditions in the defense have been overemphasized in our training. As a result, the military student has a tendency to visualize all defense under ideal conditions with an almost flankless battlefront. While training cannot cover all situations which may be encountered in actual combat, the new graduate of a service school seems to have been overimpressed with this concept of the defense.

If we are to conduct a successful defense, we must know how to gain the maximum mobility and stretch our power, for it is doubtful that the United States Army will ever have sufficient manpower

echelons: security echelon to provide warning, battle position located on the most favorable terrain available, and reserve to influence the battle at the crucial point. The difference in application of the fundamentals of defense is dictated by the width of the front, nature of the terrain, time, and the troops available. The natural defensive characteristics of the terrain will dictate the method of organization for defense and the size of forces to be employed at each echelon of the defense. However, the basic mission of the forces at each echelon in any defense remains the same. That is to say, forces in the first echelon have the task of providing early warning, stopping or channelizing hostile formations toward areas more favorable for defense. Forces in the second echelon have the task of slowing, wearing down, and stopping hostile formations. The reserves, located in the third echelon, have the task of counterattacking and annihilating hostile formations. Selection, organization, and preparation of defense areas at each successive echelon is the key to the success of any defense.

Under ideal conditions the defense is organized to engage the enemy decisively along a general organized battle position. Penetrations of the position will be countered and the enemy expelled. The terrain and forces available permit a compact defense in which effective mutual fire support by infantry weapons exists between

*Perhaps ideal conditions in the defense have been overemphasized in our training. As a result, the military student has a tendency to visualize all defense under ideal conditions with an almost flankless front*

in the future to permit defense on the ideal frontage we now teach. If mass destruction weapons are employed, it will be less feasible to mass a defensive force on a narrow front as we have done in the past.

Defense is normally organized in three

adjacent defense areas. Strong reserves are held out to deepen the defense and for counterattack. The reserve is employed in a counterattack or blocking role at a point beyond which the enemy must not be permitted to pass without jeopardizing the entire battle position.

### Future Defense

When a very wide front must be defended, the battle position is organized into strong points or defense areas which pose an unacceptable threat to the enemy flank or rear if the enemy attempts to bypass them. Strong points are located in areas essential to the continued advance of the attacker. Some defense areas serve as bases of fire for the reserve—the maneuver element of the counterattack. Under such conditions the defender considers that limited local withdrawals may be necessary, and that there may be a temporary loss of portions of the battle position until sufficient forces—generally from a higher echelon—can regain the position. In short, we concede space in order to gain time by applying the combined tactics of a defense with those of a retrograde action. The terrain is regained by the rapid shifting of forces to gain the required mass in a given area or in a decisive direction.

The introduction of greater mobility and fire power to the field of battle favors a more mobile defense. The rise of airpower, the development of airborne forces, the increasing mobility of armor, and possibility of the use of mass destruction weapons on the battlefield have served to de-emphasize the "classic" position de-

fense and to place greater emphasis on a form of defense more appropriate for future warfare. The defense is more likely to be characterized by the employment of the bulk of the defending force as a mobile reserve, while forward elements organize defense areas with missions resembling that of a security force. In this type of defense, principal reliance is placed on vigorous and bold counterattacks to destroy the enemy in the most favorable tactical localities. These localities are not necessarily limited to the battle position. Under favorable conditions the counterattack may be launched early enough to strike the enemy in his own attack position. Regardless of where the counterattack is launched, sufficient space must be provided the counterattacking force for maneuver. This maneuver of forces requires depth in the third echelon of the defense.

### Defense in Depth

A defense in depth is established because of the assumption that penetrations will be made. Defense areas in the second echelon are located on the critical terrain along the enemy's route of advance. These defense areas must "hold at all costs." In this way the defense limits the depth of the penetrations and facilitates destruction of the enemy. While penetrations into our battle position are possible, a penetration cannot continue its forward momentum when a defense area holds. The penetration will be halted unless these defense areas along its route of advance are reduced. Such an operation is time-consuming for the enemy and affords the defender an opportunity to organize a counterattack.

We often seem to feel that we cannot exist if the battle position is penetrated and the enemy remains within our lines. We must now realize that a major attack may penetrate the battle position in any defense. A modern army can concentrate enough power to penetrate at any point.

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We must, therefore, organize our defense in greater depth to block the expected penetration.

Sufficient depth must be available in any defense to allow maneuver room for the defender's reserves and for adjustments in the defensive system. When organizing for defense of wide frontages, greater depth is necessary since the units operating in the gaps between defense areas are not strong enough to stop the enemy attack. Therefore, space must be allowed for the attack to become spent and disorganized, and thus stabilize or slow down the advancing enemy to the point where a decisive counterattack is practicable. Greater emphasis must be placed on the flexible tactics of maneuver in depth.

Gaps between defense areas, both laterally and to the rear, are defended by small units, and covered to the maximum extent practicable by observation, obstacles, and planned fires. Contact must be maintained with the enemy in order to identify his main effort, and, if possible, to restrict his movements to less favorable offensive terrain. When forced to withdraw, troops in contact employ a delaying action in a preplanned direction in such a manner as to lead him into zones where he will come under intensive, preplanned "killing fires." Thus, through proper organization of the defense in depth, the enemy is deliberately drawn into a "pocket" after penetrating the battle position. Counterattacks are launched at the proper time to cut off and destroy the penetrating force.

The term "main line of resistance" may well have lost its importance in this age of mobile warfare, in which operations are conducted over wide frontages or extremely difficult terrain. With the increased depth required, it means little as a line "joining the forward edge of the most advanced organized defense areas." (Field Manual 100-5, *Field Service Regu-*

*lations, Operations*, Paragraph 554b.) The line in front of the most forward defense areas could better be termed a "planning line" for all supporting weapons to use in making their fire plan. We have always conceived the final protective lines of machine-gun fire as being interlocking bands of fire across this imaginary line in front of our position. Now, the emphasis in fire protection given must be applied to all-around protection of *each* defense area.

### The Defense Area

Efficiently organized positions are not necessarily like the conventional "fortified positions" as employed in Europe, but may resemble more nearly the Japanese "cave type" defense of World War II, organized on the crests of hills with heavily protected earth and log bunkers, deep dugouts, tunnels, and networks of connecting trenches. Positions so organized reduce the speed and momentum of the assault, and limit the ability of assault troops to maintain assault fire while climbing the slopes.

The characteristics of the terrain and its importance must be studied in order to determine the size of the unit to designate for its defense. In the past, we have usually taken our tactical organizations as they exist and fitted them to the ground, attempting to cover the entire front. When organizing for defense, we should start not with our organization, but with the ground itself. The ground is studied by means of maps, aerial photos, and by personal reconnaissance to determine which key defensive fighting areas must be *held at all costs*. It must be realized that dominant observation is of paramount importance in defense. Terrain features offering such observation must be organized and held at all costs. The decision is then made as to the size and type unit that must go into each defense area. The defending unit must then plan its defense to take advantage of the strength of the terrain.

Critical terrain features, especially those along avenues of approach into our positions, must be occupied by strong, balanced, self-sustaining units. Selected blocking positions must be prepared to strengthen the defense, and planned dummy positions prepared when time permits.

Width of sector will dictate whether the reserve must be located in one or several positions to ensure that timely and powerful action may be taken against a hostile penetration. Considerable dispersion may be necessary to provide maximum protection from enemy mass destruction weapons. Reserve units must be centrally located in terms of time rather than space—that is, time required to traverse the terrain over which they may be employed rather than the distance between their location and their area of probable employment.

#### Garrison for Defense

Assuming that the defending commander has selected the critical terrain at each echelon, his next decision must be the allocation of his forces to conduct the defense of this terrain. If the terrain must be held at all costs, it must be so organized that the force conducting the defense can continue to fight even when surrounded. If, however, the nature of the terrain is such that it permits only a delaying type action, this weakness must be recognized and a garrison, capable only of exacting the maximum possible delay by a series of defensive battles on previously projected lines, must be provided.

The smallest unit given the mission of organizing and holding a defense area during division defense operations should be a reinforced infantry battalion. Units smaller than a battalion lack the combat power required to defend a strong point long enough to permit effective counteraction by general reserves.

However, the regiment is the smallest unit which can sustain itself and have a

reasonable chance for survival for any appreciable length of time. Units smaller than an infantry regiment cannot control a sufficient area within the perimeter to permit the dropping of supplies and landing of evacuation aircraft. Furthermore, only limited supporting weapons can be included within perimeters of units smaller than a regiment.

Briefly then, the size of the unit which will be used to garrison a defense area will be dictated by the terrain. In any case, the mission of the organized defense positions will be:

1. To retain critical terrain.
2. To canalize or delay movement of an attacker by forcing him to bypass and be subjected to flanking fires from the strong point, or to make a frontal attack on the strongly organized position.
3. To serve as a base of fire support or an area of departure for counterattacks.
4. To provide a base for patrols and detached posts.
5. To provide protection for observers controlling the close support and long-range fires.

The effect of possible employment of mass destruction weapons must be evaluated in connection with the size of the garrison for the defense. The larger the unit concentrated in any one locality, the more profitable target it offers for an atomic attack. Assuming a like degree of dispersion, the larger unit will sustain more casualties—matériel, physical, and psychological. The disruption of the command structure and unit integrity of an infantry regiment will produce far more serious effects on the over-all accomplishment of the mission of a division, than will a similar attack on an infantry battalion. In addition, since the number of critical areas within a division sector normally exceeds those which can be organized by the regiments, the battalion is the most logical unit to organize and occupy a critical area.

Dispersion and digging-in make a division disposed over a wide front one of the least profitable tactical targets for atomic attack. It must be assumed that the delivery of mass destruction weapons would be followed by ground or airborne attack to exploit the results gained by the explosions. To ensure success of these attacks, sufficient weapons must be simultaneously delivered on one or more areas to permit rapid advance through the defended sector. The number of warheads required to accomplish this depends upon the number of organized critical terrain features in the sector, the intervals between these terrain features, the zone of the planned attack, and the effect of atomic attack on the mobility of the reserve.

In some instances, the terrain may permit large defense areas to be organized and defended by divisions or larger units. Large defense areas could conduct a more sustained defense when surrounded; since the larger the unit and the defense area, the stronger it becomes. Combat support elements, as well as the mobile reserve, may be included within the perimeter of the defense. Moreover, long-range fire could be delivered with heavy caliber weapons to support the forces operating between defense areas.

### Conduct of the Defense

Seldom is the terrain sufficiently strong that it is appropriate for *all* forward defense areas to be defended "to the last man." While some units located on critical terrain are required to hold firm in a rigid defense, other units may be forced to "roll with the tide" upon order of the next higher commander and fight a delaying action to previously prepared positions to the flanks or rear. The commander must recognize this fact and plan for the conduct of the defense accordingly. However, each defense area, whether it is expected to hold to the last

or not, must be protected against approach from *any* direction. Vital installations which may be placed within them must be held at all costs.

The point to be emphasized here is the fact that the success of our defense is based on two premises: first, that everything we have to save must be placed within defense areas where adequate protection is provided, and, that we must plan and organize defense areas on the critical terrain to be held at all costs. The men must be trained to realize this tremendous necessity. The purpose, reason, and strength of the defense must be explained to them. They must be indoctrinated with the fact that proper organization of the terrain places the defender in a much better position than the enemy behind them, for now it is the enemy who is surrounded—not the units manning the defense area. The doctrine of holding critical terrain must be made the creed of every individual. Even the complete destruction of a unit in the rear does not change this concept, because the forward units are in position to close the gap behind the enemy and stop his supplies and reinforcements, thus leaving the intruder in a pocket.

There may be times, of course, when the terrain does not permit all-around defense and a unit in a forward position may find itself in danger of being completely overrun. The commander, in this case, cannot blindly sacrifice a unit for the sake of "holding to the last man." Three decisions are normally open to the next senior commander under such circumstances.

1. A decision to hold or fight it out on the spot and accept the possible sacrifice of that unit. This may be necessary when the unit occupies a critical avenue of approach that must be held to avoid complete disruption and eventual destruction of the major unit's position.

2. A decision to reinforce the forward unit by movement of local reserves or by



massed fires. In cases when a next higher commander no longer has reserves available to him, the decision to withdraw should not be made until his superior has indicated that he has no reserves which he can allocate to help retain the position.

3. Order the surrounded unit to fight its way through the enemy forces which have succeeded in surrounding it. A withdrawal is initiated on the authority of the next higher commander who, in turn, has notified and received authority from his next superior, communications permitting.

When ordering a withdrawal, the commander must weigh the possible losses to enemy air and artillery during a daylight withdrawal against possible losses during a night withdrawal over difficult or unfamiliar terrain. When the terrain is extremely difficult, or the unit is not thoroughly familiar with the terrain, a night withdrawal of forward units when surrounded will be costly. When ordering a withdrawal, one of the following subsequent actions must be planned:

1. An attack of both flanks of the enemy penetration designed to surround and annihilate the enemy. Whenever practicable, this course of action should be followed.

2. A strengthening of the shoulders of the penetration in order to prevent the enemy from widening it.

3. A voluntary withdrawal of adjacent units in order to take up a position previously prepared adjacent to the unit that has withdrawn under pressure.

Many commanders shudder at the mention of the term withdrawal. Actually, a properly executed withdrawal is a defensive form of maneuver. It has even been termed a "maneuver backward." The withdrawal may be preplanned in order to preserve initiative and to gain greater freedom of maneuver.

When ordered to withdraw, the unit retires to the nearest defense area to the flank or rear to assist in its defense or

take part in a subsequent counterattack. Definite withdrawal routes for all units, and their subsequent roles, must be clearly defined. All weapons within range fire preplanned concentrations and barrages in the gap left by the withdrawal of a unit. When supporting fires are properly planned and executed, these gaps become virtual death areas for the penetrating force; thus, the withdrawal becomes part of an active defense in depth.

The employment of artillery and mortars is a major consideration during the conduct of the defense. As the width of the sector to be defended increases, the difficulty of massing fires within that sector is multiplied. Artillery and mortars must be initially located to provide maximum support and subsequently shifted, if necessary, to prepared alternate positions.

### Artillery Units

Artillery units have become primary targets for infiltrating infantry; therefore, maximum security must be provided. This can be achieved by locating these elements within organized defense areas of infantry units. However, to do so may not only dangerously reduce the flexibility of artillery support, but also overextend the defensive capabilities of the infantry battalions in an organized defense area. When artillery positions are located adjacent to organized defense areas of the infantry battalions, the artillery units will receive protection from the weapons of the infantry. They must be prepared to shift to alternate position areas without disrupting the conduct of the defense by infantry units.

Each artillery position area must be prepared for all-around defense and each artilleryman trained to defend against a ground attack. Likely avenues of approach to position areas should be mined and obstacles prepared. Plans for the defense of artillery positions must be carefully prepared and frequently rehearsed. Addi-

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tional automatic weapons may be allocated to artillery units for defense of their position areas. During the conduct of the defense, artillery fires must be planned not only to support organized defense areas, but also to protect their own artillery positions.

### Armored Attacks

Defense against armored attacks must be planned in great detail. Early warning of enemy offensive movement, especially by armor, is of vital importance and places a premium on signal communications and aggressive patrolling by air and ground units. The bulk of armor must be available to strike hostile armor on the flanks once forward areas have been penetrated, or to deepen the division antitank defenses. The correct marking and recording of minefields is particularly important to permit utilization of routes through them, and to ensure that these fields can be removed by friendly troops without loss of life and equipment. Sufficient emphasis is not given the marking and recording of minefields either in training or combat. Minefields must not be so prominently marked that the enemy is able to locate them exactly, however, their marking must permit friendly operations in the area.

Units occupying defense areas at each echelon of the defense must retain the greatest measure of initiative by constant aggressive patrolling. Aggressive patrolling retards the enemy's ability and willingness to probe our positions, keeps him alerted, weakens and destroys his positions, lowers his morale, and costs him heavily in personnel. Most important, however, is the fact that active patrolling maintains the spirit of aggressiveness in the patrolling unit.

Frequently, information of the enemy, his strength, and dispositions is not gained by reconnaissance patrols using stealth and observation alone as commonly con-

templated by accepted doctrine. Rather it may be obtained by boldly attacking him in daylight to force him to reveal his positions.

Security for the flank and rear defense areas is maintained by continuous day and night patrols, both foot and motorized. A series of outposts, ambush parties, and roadblocks are interspersed between the defense areas. This system of offensive patrolling and the careful location of outposts and ambushes not only provides the commander with early warning of the enemy's approach, but also serves as a screen against infiltration.

In order to ensure continuous contact along an extended frontage or difficult terrain, security at night and during periods of low visibility is provided by increasing the number of listening posts, by employing ambush patrols along likely avenues of approach, and by the liberal use of trip flares, artificial illumination, mines, and other warning devices.

In every defense, frontline regiments should establish areas of patrol responsibility for battalions occupying defense areas in the regimental sector. These areas of patrol responsibility are continuous along the front. In cases of an extended frontage, the battalion on each flank of the division sector may operate a base for patrols along the division's flanks. When organized, these patrol bases are utilized to reduce the distance which security elements will have to operate from parent units. Within its area of patrol responsibility, each battalion establishes a series of outguards, detached posts, and observation posts. These reconnaissance and security posts are checked frequently by visiting patrols. Communications facilities must be provided security elements to ensure immediate reports of enemy contact, and to ensure control of the withdrawal of security elements into battalion defense areas in event of an enemy attack. Plans must be

carefully co-ordinated to prevent skirmishes between friendly patrols. Artillery must be prepared to support these security elements.

### Rear Area Security and Reserves

It may seem strange to combine the discussion of rear area security with reserves. However, in the final analysis, all units and individuals, regardless of branch or primary duty, not in contact with the enemy, constitute the reserve. Many of these units and individuals are located in the most rearward echelon of the defense and are charged with the security of areas and installations located therein. These units frequently constitute the last force available to meet the enemy threat.

Against an enemy skilled at night fighting and infiltrating to rear areas, rear command posts and engineer road maintenance units may expect attacks by guerrillas or organized units which have infiltrated to the rear. Some may be only nuisance attacks, while others will be large size and well planned.

Many cooks, mechanics, and personnel clerks will be unexpectedly assigned a new primary military occupational specialty—that of rifleman. There have been innumerable times when specialists were called from their regularly assigned jobs to participate in a counterattack. All service and combat units in rear areas must prepare their particular positions for defense which is a part of the defense in depth. They must at all times be prepared to defend their own positions, occupy and defend reserve or blocking positions, and participate in a counterattack. Due to the ever-present shortage of combat troops and the difficulty in preventing infiltration by a skillful enemy, we cannot depend on the assignment of combat troops for protection of rear areas and installations. Every cook, supply sergeant, and clerk-typist must be thoroughly

trained as rifleman or heavy weapons crewman. To aid in their defense and security, rear area installations must be dispersed, dug-in, camouflaged, and concealed. All units within the area must be under one command for tactical employment, and each individual must know his role in the defense of the installation.

Commanders are frequently forced to accept weaker reserves than desired. It then becomes necessary for the higher commander to exercise control of the employment of the next lower unit's reserve force—the division commander may restrict and control employment of the regiments' reserves.

When commanders commit all or even the bulk of their forces to positions in the forward areas, leaving inadequate reserves to counter an enemy penetration, any success by the enemy may carry him through the shallow position and permit him to operate in our rear areas. In such situations, the thin line across the entire front can do little to deflect the main attack and there are no reserves with which to counterattack. This practice must be carefully guarded against. Wide fronts require greater depth to positions and stronger mobile reserves. Any attempt to cover the entire front by automatic weapons and small arms fire will only weaken the reserves and sacrifice the depth of the entire zone.

Massed fire power may be substituted for a reserve, but at best it is only a temporary expedient, or a poor substitute for a well-planned counterattack.

The defense must be organized at each echelon to deflect an attack or to split the enemy's advance. When the attack is sufficiently broken or halted, a counterattack must be launched before the situation becomes stabilized. The decision to commit the reserves in a counterattack must be based upon the dispositions of the enemy forces within our defensive sector. For example, a division commander faced with

a strong penetration in his sector must consider the situation from the point of view of the division. To permit forward regimental commanders to counterattack a strong enemy penetration which offers but a slim chance for success may result in the entire sector being jeopardized.

Counterattacks are of two types; first, counterattacks to regain defense areas. This normally means regaining critical terrain by driving the enemy out of the battle position or by destroying the penetrating force. Second, are the counterattacks which seek to trap and destroy the penetrating force. This type counterattack is justified primarily in an area where the terrain does not permit adequate organization for defense and a hostile penetration is considered likely. The latter can be planned in greater detail and, if successful, achieves more decisive results. This entails drawing the enemy into a trap by controlling his axis of advance with the use of the organized defense areas and with the aid of selected compartments of terrain. Once he is in the trap, the enemy has little opportunity to expand toward the flanks and is doomed to destruction by the defender.

When setting a trap, measures must be taken to prevent the enemy from withdrawing or being reinforced. Controlled mines may be emplaced to prevent the enemy from withdrawing or being reinforced after the trap is sprung. The mines are detonated by personnel who can observe the minefields. Artillery and mortar barrages and concentrations are also placed across the entrance of a likely penetration area. Close co-ordination is required to prevent artillery and mortar fire from detonating controlled minefields.

Normally we plan our counterattack to strike the enemy penetration in its flank. Frequently, however, secondary counterattacks, using reserves of subordinate units not engaged, can be employed to cut off the base of a penetration—thus per-

mitting the main counterattack force to engage and destroy the penetrating force without diverting any of its strength on secondary efforts. The enemy is forced to redistribute his forces to face the new danger. The redistribution will decrease the number of forces available at the point of his penetration. Or we may attempt to cut through the base of his penetration and leave his advanced troops surrounded.

Objectives for each counterattack must be commensurate with the size of the counterattacking force to prevent overextension. This also permits arrival at the objective with maximum speed in order to organize it properly before the enemy can react. The counterattack must be directed at an objective which, upon capture, will not only destroy or force the withdrawal of the enemy penetrating forces, but also control the likely area of enemy reinforcements. The objective must also be of such tactical importance that the enemy cannot continue his penetration without regaining the lost ground. Counterattack plans must be simple. We must plan all of the details of control to include the marking of routes to the line of departure, fires to be co-ordinated, and forces to be employed.

The greatest advantage to the counterattacker is the personal knowledge of the terrain over which the defender operates. In the daytime this is of tremendous value—a night counterattack is practically impossible of accomplishment without such knowledge. Not only is it necessary for the staff officer who is making the plans for the counterattack to have intimate knowledge of the ground, but also, even more important, the men and officers who will participate must know the ground in detail by day and night.

Timing of the counterattack must take full advantage of the enemy's disorganization to prevent time for his reorganization or withdrawal. Rapid exploitation to block escape routes and destroy the encir-

cled enemy may involve a complete reversal of action—retrograde to exploitation—and will require aggressive leadership on the part of commanders.

Since we can never be sure in advance of the exact location or direction of the counterattack, several complete plans must be made to cover the most probable enemy actions. A suddenly improvised plan can do more harm to us than to the enemy. The soul and essence of the counterattack is advance planning.

### Mobility—Speed

Speed of action combined with expert maneuver and efficient use of terrain is essential to the success of the defense. However, vehicular and armor mobility and speed in rugged terrain, or where poor road nets exist, is less important than that which we emphasize in our training. Under these conditions the foot soldier is the more mobile and important weapon. We can expect the enemy to be equally handicapped. However, it is emphasized here that most foreign armies are not as dependent upon armor and vehicles in their attack as are our forces. Their individual riflemen are usually better acclimated and more familiar with the terrain, and, hence, more mobile.

Mobile power centrally located in terms of time is the essence of a defense system. Successful conduct of any defense depends primarily on the rapid movement of reserves to counter enemy thrusts. Wide intervals between defense areas require that some force be devised to gain contact with and delay an enemy force which has driven in local security elements and penetrated between the defense areas. Such a force must be highly mobile, possess strong fire power, and have the capability of covering the movement of the counterattacking force. When possible, it joins the counterattacking force. Units which are suitable for this security role are the division reconnaissance company, elements

of attached or organic tank battalions, and motorized infantry from the division reserve. In a situation where light armored units are available, they should be employed as mobile security forces between organized defense areas. Upon receipt of information of an enemy penetration, the designated security force may occupy previously reconnoitered positions, and delay the enemy advance until the counterattack can be launched.

Defensive action in any form can have a disastrous effect upon morale. If the defense or retrograde movements are conducted over long periods, a defensive outlook will develop which may eventually hinder successful development of any offensive action. It is, therefore, absolutely essential that defensive action be conducted in such a manner that it will not weaken the individual's offensive spirit.

Once retrograde or delaying actions are begun, they become infectious. It takes real leadership on the part of commanders to instill a feeling in their troops that even though a sufficiently heavy attack is certain to surround their forward areas, they are capable of either deflecting the main weight of the attack or of fighting a planned delaying action to prepared positions to their rear. If isolated, the troops must know that a prearranged plan exists for their supply, evacuation, and rescue.

### Conclusions

Emphasis on killing the enemy in the defense rather than merely stopping or repelling him will do much toward developing aggressiveness. Each man in the frontline foxhole must be obsessed with the determination of destroying the enemy at every opportunity by an active and aggressive defense. He will develop a feeling of superiority over the enemy in this manner.

It has not been the purpose of this article to propose changes in our doctrine of defense; but rather, to indicate those fundamentals requiring greater emphasis

when conducting a defense in the future.

If we are to be successful in the initial phase of any future conflict more emphasis must be placed upon:

1. The organization of a more elastic type defense.

2. Echelonment of defense areas in greater depth.

3. Organization of defense areas on critical terrain, designating those which will hold at all costs, and those which will roll with the punch to prepared positions in the rear.

4. More thorough training in the execution of planned withdrawals by all size units, by day or night, with greater emphasis on inflicting the maximum casualties and maintaining tactical integrity of the command.

5. Development of a more aggressive spirit in the defense, both individual and unit.

6. More emphasis in detailed planning and rehearsing for the counterattack.

7. Greater attention must be given to rear area defense by personnel and units normally employed in rear areas. Service-type units must be included in the defense plans of the entire division sector. They must be kept abreast of the tactical situation and their own possible employment at all times. These units must be trained, equipped, and organized in the rear areas in such a manner that they cannot only defend themselves and their own installations, but can also be used as an effective force in a counterattack role whenever necessary.

8. Continued emphasis on individual and

unit training in night operations, particularly night patrolling and night attacks. We are still poor night fighters.

9. Commanders from the squad leader upward must emphasize the art of deception—the fundamentals of camouflage, concealment, scouting and patrolling, and fire discipline both in training and in combat.

The commander planning a defense against a mobile enemy heavy in fire power must prepare his defense plans with a prior knowledge of the fact that he may not be able to prevent the enemy from making penetrations into his sector. But he must provide for canalizing these penetrations into terrain disadvantageous to the enemy attack and then employ his reserves to force the withdrawal or to destroy the enemy's penetrating forces.

Future training must be directed toward defense against a well-trained, lightly armed enemy using mass tactics. We must be prepared to fight with less transportation and supplies under the most difficult weather and terrain conditions.

Properly conducted, the defense can be a determined type action in which we utilize to the maximum the forces we have by substituting superior tactics and fire power for shortages in manpower. Such action yields ground only after extracting from the enemy the highest possible price for all that he gains. The commander who is judicious in the application of those fundamentals most applicable to the existing conditions will conduct the most successful defense.

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It is our job to ensure that we are so well prepared against a gas-type "Pearl Harbor," that we can roll with the punch, suffering as little damage as possible, and strike back immediately. We must make our plans so that we can absorb the initial attack of a strong enemy using the most modern weapons, and still be able to retaliate promptly and overwhelmingly.

Major General E. F. Bullene



# G2 and the Atomic Target

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**C**OMMANDERS and staffs have been instructed in the tactical employment of atomic weapons. Units have been organized, trained, and assigned to field commands. Manuals and other training literature have been disseminated on the subject. *The success or failure of the atomic attack now rests upon the intelligence which provides the basis for the attack.*

The reader, at this point, may well say there is nothing new in the above statement. The successful employment of an 8-inch gun or 155-mm howitzer also requires appropriate and accurate intelligence. However, how many different opinions have been expressed on the intelligence procedures for atomic warfare? There is one opinion which expresses the need for a central collecting and processing atomic intelligence agency—a Joint Intelligence Center similar to a Joint Operations Center. Other opinions incorporate the one main consideration given above, namely, an atomic intelligence system.

## Locating Targets

This article purports to dispel any thoughts of establishing any form of an atomic intelligence system because there is not, what is believed by most, a distinguishable atomic target. Any target may be an atomic target, and there is no need to invent a new system. The answer to the intelligence problem rests with the G2 at each level of command, from division to the field army. How he does his job is the key to success.

The first requirement of any G2 is to locate targets. To be successful, he must

know how to apply his knowledge of the basic fundamentals of combat intelligence, and he must understand the requirements for hitting a target with every type weapon available to his commander, including the atomic weapon.

To apply his knowledge of the basic fundamentals of combat intelligence, the G2 must have a full appreciation of:

1. Enemy tactical doctrine.
2. Enemy Order of Battle.
3. Enemy status of training and morale.
4. Enemy status of supply.
5. Enemy strengths and weaknesses.
6. Weather and its effect on enemy capabilities.
7. Terrain and its effect on enemy capabilities.

An understanding of the requirements for hitting a target includes:

1. Weapon effects to include atomic.
2. Target suitability.
3. Target intelligence.
4. Weather and its effect on weapon effects to include atomics.
5. Terrain and its effect on weapon effects to include atomics.

Not related to the knowledge discussed above, but of great importance to the G2, is the need for close co-ordination between himself and the G3. The G2 must know current and projected operations if he is to be successful in locating targets, and provide the intelligence necessary for target analysis.

Finally, the G2 must appreciate the fact that the atomic weapon introduces a requirement for collecting additional information which will satisfy the needs of a commander who has the new weapon to



fire. Before atomics were added to the family of supporting fires, the intelligence produced was designed to meet the needs of every commander. At corps level, for example, appropriate intelligence was produced to fully exploit the artillery at corps. Now that the field commander has a new means of supporting a scheme of maneuver, requisite intelligence must be produced to permit him to use this new weapon.

With this as background—and keeping in mind that the job before G2 is to collect information and intelligence for the employment of an atomic weapon—let us see how he can accomplish it.

### Know Your Enemy

If Aggressor is defending, for example, the disposition of the forces will follow the pattern set forth in his defense doctrine. Aggressor doctrine states that he defends with four zones: a security zone, main defensive zone, second defensive zone, and a rear defensive zone. Each zone is separated by predetermined distances, depending upon the terrain. Further, we know that the second defensive zone is prepared—but not necessarily occupied by army reserves—and that army group is responsible for the rear defensive zone. By a careful and detailed analysis of the terrain, G2 should be able to plot the general trace of these defensive zones.

Applying his knowledge of Aggressor

of operations; for an army G2, the army group area of operations.

The G2's next step is to visualize the various types of units in the scheme of defense—which types should be found in the main defensive zone, the second defensive zone, and rear defensive zone. G2 now has a framework upon which to build.

Aggressor's defense doctrine states that the main defensive zone will normally be manned by rifle divisions and that the rifle divisions in the main defensive zone defend with battalion size units—units mutually supporting and disposed for all-around defense—and that rifle divisions normally place one or two rifle battalions and the division tank regiment in division reserve. In addition, G2 knows that Aggressor usually holds mechanized divisions under army group control.

By a detailed study of the terrain, G2 next selects specific areas within the scheme of defense which can and should logically be occupied by the various Aggressor units. Here, G2 must apply his knowledge of the size and composition of the major elements of Aggressor divisions and, again, Aggressor's defense doctrine. For example, G2 knows that the rifle divisions reserve is normally located near the most dangerous avenue of approach into Aggressor's defensive position. Recall that this reserve is usually one or two rifle battalions and the tank regiment. This, then, guides the G2 in his selection of the specific areas where he

***The success or failure of an attack rests upon the intelligence which provides the basis for such an attack. Since any target may become an atomic target, there is no need to invent a new system for its location***

Order of Battle, G2 then determines the type units which should be found within his area of consideration. For a G2 of a division, the area of consideration must include, as a minimum, the corps area of operations; for a corps G2, the army area

should find the division reserve located.

With regard to the mechanized divisions, G2 knows the composition and size of the major elements. Recalling that mechanized divisions are normally held in army reserve, and further that army

prepares but does not necessarily occupy the second defensive zone, G2 is guided in his selection of the specific areas where he should find this type unit. Similar reasoning is applied for the Aggressor tank divisions. Finally, by applying his knowledge of the weather, status of enemy training and morale, strength and weaknesses of the enemy, the intelligence officer then can narrow down his probable target areas to pinpoint sites.

It should be evident to the reader now what the G2 has accomplished. Instead of waiting for targets to be reported, G2 has anticipated targets. He has neither adopted a "guessing-game" routine nor a "wait-and-see" policy. Now he places his entire collection effort on verifying his potential target system.

#### Offensive Operations

There are several applications of this system. By maintaining close co-ordination with G3, G2 may apply the system to contemplated operations. If our own forces are planning an offensive which requires a major penetration followed by an exploitation, G2 must direct his collection effort to verify his suppositions of the locations of those targets which, if attacked by atomic weapons, will support the operation. He will want to fix those targets which may interfere with the penetration, and those which may influence the successful outcome of the exploitation.

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It should be obvious that the G2 cannot wait for the planners to decide on an operation and then begin his search for targets. His part in the operation started before the planning when he provided his estimate of the enemy situation. At that time he presented those targets he had located.

#### Battlefield Surveillance

The method described above for locating targets is not limited to lower echelons. It can be applied at field army level as well. Prior to the availability of atomic weapons, the field army commander provided means to his corps commanders who fought the battle. Today, he may employ supporting atomic fires directly under his control. His interests then can reach deep into enemy rear areas.

Unlike air strikes upon targets reported by lower echelons, the field army commander may employ atomic weapons upon targets of his own choice. Such targets may be large enemy forces capable of interfering with the accomplishment of the mission of a corps commander. Normally, division and corps intelligence officers do not have the agencies available to them for locating targets that deep in enemy territory. The responsibility, therefore, falls upon the army G2 who must collect the desired target information through appropriate agencies and sources made available directly to him.

#### The Atomic Target

It should be emphasized at this point that the intelligence officer is not seeking so-called atomic targets. The intelligence collection plan must be designed to locate any and all types of targets. An enemy reserve located in rear of the line of contact, for example, may be considered by the commander as a target for atomic weapons, but, because of overriding factors, other attack means must be employed. On the other hand, the commander does not intend to wait for the intelligence offi-

cer to "generate" an atomic target after atomic means have been allocated. Each intelligence officer, therefore—to include the G2 at army level—must search continuously for all types of targets. His search must extend to the limits of the capabilities of the weapons available to his commander. In addition, the information and intelligence on each target must be as complete as necessary to properly achieve the maximum effects of the weapons selected to strike the target.

### Summary

The introduction of atomic weapons has not added a new mission to the intelligence officer. His principal role remains as before—the production of intelligence. The

means available to him are the same, and the methods used to process information are unchanged. Atomic power on the battlefield has served to emphasize the need for thoroughly trained intelligence officers who anticipate the needs of the commander and staff. To fulfill that responsibility, the G2 cannot adopt a "wait-and-see" policy of operation. He cannot prepare and issue a standing operating procedure and then sit back and wait for information to reach him from lower echelons for this will not solve his problem. He must learn how to anticipate probable targets, and then—by dynamic and continuous efforts—collect the needed information to strike any target whether it be by atomic weapons or by other means.

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If we are honest with ourselves, we will acknowledge that there are big wars, little wars, general wars, localized wars, Marquis of Queensbury wars and savage, ruthless wars; atomic wars and, perhaps, nonatomic wars. What can we expect? What can we count on to guide us in our planning? Again, if we are honest with ourselves, and have the wit to see the possibilities for varied political contingencies, we will conclude that we cannot say, for sure, just what kind of conflict the next international crisis might precipitate.

If the answer is "Atoms!" that is one thing. Were the criterion to be "No atoms!" we are militarily right back where we started.

I cannot, nor can anyone else, forecast the blueprint for an ultimate showdown of the nations now in ideological conflict. It is entirely conceivable that we might see a limited use of atomic weapons. We might see, and probably will see, a continuation of the so-called brush fires. Or we might see, as has so far been the case with chemical and bacteriological warfare, a nuclear stalemate with both sides refraining for fear of retaliation.

Confronted with great uncertainty in this respect, I see no alternative but to hedge our strategic bets, ready to rush into the future, but also prepared to meet, and rely on, the methods of the recent past.

*Admiral Robert B. Carney*

# War as a Continuation of Politics

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*The views expressed in this article are the author's and are not necessarily those of the Department of the Army or the Command and General Staff College.—The Editor.*

THE thesis that "war is the continuation of political intercourse with an admixture of other means" or, as alternately expressed, "war is an instrument of policy," is, of course, that expounded by Clausewitz. My assigned task is to discuss the meaning of this thesis, to review its application among major foreign powers, to explore the significance of this theory in American history, and, finally, to discuss its importance to the United States in the present-day world. All this I hope to accomplish within a limited space, so I beg your indulgence if, at times, I seem to oversimplify or to skim rather nonchalantly over vast and complex areas.

Clausewitz developed this theory in his major work, *On War*, which was published after his death from an incomplete manuscript in which only the first short chapter was completed to the author's satisfaction. As though anticipating his early death, Clausewitz wrote that in its unfinished form his work "may certainly be described as a hotchpotch of ideas, which, being exposed to ceaseless misunderstandings, will give rise to a multitude of hasty criticisms." He was correct in predicting misunderstandings, although criticisms have been few.

His book, *On War*, is the most comprehensive ever written on that subject. Being very much an intellectual, his work contains countless penetrating reflections and observations which require concentrated study and analysis to comprehend fully. One must also be alert to note whether Clausewitz's observations refer to tactics, to military strategy, or to national strategy and policy, as his opinions on one may not apply to the others. The book is also replete with attractive catch phrases and forceful expressions, which are frequently accompanied by less conspicuous, but significant, qualifications. All these characteristics make it possible, by judicious selection from among the wealth of material, to develop philosophies which can be attributed to the author but which do not reflect his views accurately. This has been done sometimes wittingly, sometimes unwittingly, and sometimes, as we shall see, with adverse effects on the destiny of nations. My remarks thus far have stressed the pitfalls which lie in the path of anyone who ventures to discuss Clausewitz. You must judge whether I become ensnared.

Clausewitz's life spanned the latter part of the reign of Frederick the Great and the period of Napoleon's campaigns. In these campaigns he served with both the Prussian and Russian armies. Believing strongly in the superiority of actual experience over book learning, he leaned heavily on the campaigns of Napoleon and next on the wars of Frederick in developing his theories. The differing nature of war in the time of these two leaders impressed him. In Frederick's era, war was conducted as a business of the govern-

ment which regarded itself as the State. Armies were mercenary forces supported from the treasury.

Both military forces and treasury belonged to the government and not to the people. Consequently, these forces had to be husbanded because of limited manpower and financial resources, and, therefore, the military effort which the government could exert had readily defined limits. Clausewitz remarked that in those days land armies resembled fleets, and warfare took on the nature of naval tactics—visualizing, I suppose, modest armies maneuvering through a sea of generally unconcerned humanity.

#### Nation in Arms

But with the French Revolution and the wars of Napoleon, war became an affair of the people. The participation of the people made available means and effort limited only by the energy and determination of nations. Of course, throughout the centuries there had been peoples organized for war—the Assyrians, the Spartans, the Persians, the Ottoman Turks, and the Mongol hordes of Genghis Khan and his successors, to mention some—but here were the modern civilized nations of the world turning to a “nation in arms” concept.

Clausewitz defined policy as “the representative of all the interests of the community.” Thus, war having become an

Of the relationship between war and policy Clausewitz concluded “war is nothing but the continuation of political intercourse with an admixture of other means.” His many reflections in support of this view may be summed up, generally in his own words, somewhat along the following lines.

*Over and above all means of intercourse between nations is policy. All the elements which enter into war, such as national power, alliances, and the characteristics of people and governments, are of a political nature. War is only another element of social existence, another means of intercourse between nations, comparable to trade. War is only caused through the political relations of nations, and these relations comprise the womb in which war is nurtured, in which its outlines lie hidden in a rudimentary state. War, therefore, can be nothing but the continuation of political intercourse with an admixture of other means. The phrase ‘with an admixture of other means’ is added to emphasize that political intercourse does not cease with the onset of war, but that the main lines along which the events of war proceed and to which they are bound are only the general features of policy. It cannot be conceived otherwise, for the cessation of diplomatic notes does not stop political relations between nations. War is merely another kind of writing in which battles take the*

***With Clausewitz's theories which fascinated the Germans, the Soviets also adopted his subtle observation that, “The conqueror is always a lover of peace; he would like to make his entry into our state unopposed”***

affair of the people logically became intimately related to politics. The terms “policy” and “politics,” when used in this discussion, refer to foreign policy, although we must always consider the inextricable relationship of domestic politics to foreign policy.

*place of notes. If wars were fought to the last breath out of pure mutual hatred, it might be conceivable that the political point of view would end completely when war begins. But, as wars are in reality only the manifestation of policy itself, the subordination of the political point of*

view to the military would be unreasonable, for policy has created the war and war is only its instrument. As war is an instrument of policy, it will take on its character; if policy is grand and powerful, so also will be war. If war is to correspond entirely with the intention of policy and policy is to accommodate itself to the means of war, the political and military direction should be centered in one person. But the military commander can demand that the tendencies and designs of policy shall not be incompatible with the means of war provided.

Clausewitz defined war as an act of force to compel our adversary to do our will, the object of which is the destruction of the enemy's armed forces. Possibly anticipating that the term "destruction" might be interpreted as physical annihilation, he insisted that the term be understood solely in the sense of disarming, or putting enemy forces in such a condition that they can no longer continue to fight. His views on the nature of war may be summed up thus:

*There is no artistic way of destroying the enemy's armed forces without bloodshed. In war, false ideas proceeding from kindness of heart are precisely the worst. He who uses force ruthlessly must gain an advantage if the adversary does not do the same. Therefore, each pushes the other to extremes to which the only limit*

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is the strength of resistance on the other side. War in its theoretical conception is war as carried on by Napoleon—ruthlessly, without slacking for a moment until the enemy is laid low—absolute war. However, in reality the interplay of interests, circumstances, and human factors tend to make war fall short of its absolute form, making it an affair varying at times from war of extermination to a mere state of armed observation. But the theoretical conception of war must ever be kept in mind, and its standard approached where it can or where it must.

#### Advance of Civilization

That the advance of civilization might change this, Clausewitz doubted, for he stated:

*The invention of gunpowder and advances continually being made in the development of firearms, in themselves show clearly enough that the demand for the destruction of the enemy, inherent in the theoretical conception of war, has been in no way actually weakened or diverted by the advance of civilization.*

To which remarks, almost a century and a half later, we can only say "Amen."

Such, briefly, is the philosophy of Clausewitz concerning war and politics. To assess the significance of this philosophy I can do no better than to repeat the words of Major Steward L. Murphy of the British Army who, in 1909, referring particularly to Germany, wrote:

*I would suggest that we should regard every foreign statesman . . . as consciously or unconsciously a disciple of Clausewitz, that is to say, we should regard him as a man who, underneath everything else, underneath the most pacific assurances for the present, considers war an unalterable part of policy. He will regard war as part of the ordinary intercourse of nations, and occasional warlike struggles as inevitable as commercial*



struggles. He will consider war also as an instrument of policy, which he himself may have to use, and to be studied accordingly. He will consider it not as a thing merely for speeches, but for practical use in furthering or defending the interests of his State. He will regard war as the means by which some day his nation shall impose its will upon another nation. He will be prepared to wait, to make every imaginable preparation, and finally to let loose war in its most absolute and ruthless character, war carried on with the utmost means, the utmost energy, and the utmost effort of a whole nation-in-arms, determined to achieve its political object and compel submission to its will by force.

To talk to such a man of the 'evils of war' or of the 'burden of armaments'; or to propose to him 'disarmament' or 'reduction of armed forces,' and so forth, can only appear to him as the result of 'imperfect knowledge.' He will not say so but he will think so and act accordingly. To the partially instructed opponent of such a man one can only say, 'Let him that thinketh he standeth take heed lest he fall.'

This was inspired prophesy on the eve of World War I. Its truth became increasingly evident in the decade preceding World War II, although the warning went unheeded. It is serious cause for reflection today.

### Areas of Influence

The influence of Clausewitz's writings slowly infiltrated German military circles, becoming more pronounced during the period of his first eminent disciple, the elder Moltke, who directed the war in Austria in 1866 and with France in 1870. Their astonishing and rapid successes in these wars convinced the Germans that their interpretation of Clausewitz was sound. This interpretation proclaimed the pre-eminence of aggressive war, ruthlessly pursued,

to secure national aims. Clausewitz continued to be the prophet throughout the chain of Moltke's successors—Schlieffen, Ludendorff, Hitler—each seeming to find in Clausewitz that which satisfied the historic Teutonic psychological urge. Ludendorff went so far as to read into the statement "war is an instrument of policy" the idea that "war is the principal instrument of policy." The disaster of World War I failed to shake the German faith in their philosophy, and even as late as April 1945, as the ruins of his country tumbled about him, Hitler, in his final testament to the German people, referred to "the great Clausewitz."

The French, seeking a reason for their colossal failure in 1870, also discovered Clausewitz. They, too, became obsessed with the infallibility of the offensive, and through Foch and his disciples developed the philosophy of "attack, always attack" which in World War I hurled the French armies in reckless, bloody, and futile charges against German machine guns and barbed wire.

On the other side of the world, the Japanese, attributing their success in the Russo-Japanese War largely to their German tutor, Mechel, a self-proclaimed pupil of Clausewitz, firmly embraced the German philosophy, adding oriental refinements.

The pursuit of this interpretation of Clausewitzian philosophy eventually led the Germans and Japanese into national disaster. There were, of course, many reasons for these failures, but at the root of all was the fact that both the Germans and Japanese had chosen to ignore some of Clausewitz's fundamental warnings in their enthusiasm to apply their conception of his theories.

For although Clausewitz advocated audacity and aggressiveness in the conduct of war, he emphasized caution in choosing war as an instrument of policy. He warned that "the first, greatest, and most

decisive act of judgment which a statesman and commander performs is that of correctly recognizing the kind of war he is undertaking, of not taking it for, or wishing to make it, something which by the nature of circumstances it cannot be." And he also emphasized, as a fundamental idea, that "every war be looked upon as a whole from the very outset. . . ." It is obvious that the Central and Axis Powers in initiating World War I and World War II did not understand the type of wars they were undertaking, and neglected to think them through to their ultimate conclusions, or, if they attempted to do so, they made serious fundamental miscalculations in both cases.

Unheeded also went the warning of Clausewitz that in the pattern of aggression the offensive after initial gains eventually became reduced to a very disadvantageous defensive, at which time the aggressor was exceedingly vulnerable to a counteroffensive by the original defender. Clausewitz considered the defensive the stronger form of war. In this view he was influenced, no doubt, by the campaigns of Frederick in the Seven Years' War and the Russian repulse of Napoleon in which he participated.

He made clear, however, that by defensive he did not mean a purely passive attitude merely to ward off blows, a strategy which in this age of science would spell national suicide.

Instead, he envisaged at the bottom of all defense adequate preparations for war and the idea of retaliation, swift and strong—the flashing sword of vengeance; the defensive-offensive of modern times.

In the sequel of events in World War II—first, the initial gains of the aggressor offensives, then the eventual transition from offensive to defensive, and finally, the crushing counteroffensives of the Allies—we see clearly the pattern which Clausewitz described.

### Soviet Doctrine

The basic doctrine of present-day Soviet communism is greatly influenced by Clausewitz's theories. Marx rejoiced at finding in such an eminent military authority substantiation for his own theory of the relationship between war and politics. Thereafter, Clausewitz became imbedded in revolutionary doctrine. Lenin also studied the work, *On War*, concentrating on the philosophy of war rather than its conduct. His highly favorable comments were published on several occasions. Between World Wars I and II, Clausewitz was taught in Soviet military schools, and hundreds of Soviet officers studied in Berlin.

However, undoubtedly irked by the prominence given Clausewitz and Lenin, Stalin repudiated them both after World War II, substituting what he termed a strictly Soviet philosophy—which remained practically pure Clausewitz. We might note that this happened during that era of the deification of Stalin, and the beginning of the campaign to erase foreign influences by suddenly discovering that various unknown Soviets had invented the airplane, the X-ray, baseball, and the like.

However, Clausewitz's theory that war is a continuation of politics, and his view of the violence inherent in the theoretical conception of war, remain fundamental in Communist doctrine.

The Soviets, while adopting those theories of Clausewitz which so fascinated the Germans, also displayed interest in his more subtle observations. "The conqueror," said Clausewitz, "is always a lover of peace; he would like to make his entry into our state unopposed." This remark Lenin considered very witty. And in the following quotation from Clausewitz one could well believe that he was reading an extract from current Soviet policy:

*If there are any enterprises which are*

*particularly suited to breaking up the enemy alliances or making them ineffective, to winning new allies for ourselves, to stimulating political activities in our favor, and so forth, then it is easy to conceive how much these can increase the probability of success and become a shorter way to our object than the defeat of the enemy's armed forces.*

The Soviets have long excelled in political warfare, not only against the governments of neighboring states, but also directly against and through social and political groupings within these states. The "political attack" has often, and preferably, been accompanied by the threat of overwhelming military force. When war occurred, it was conducted with the political object paramount. I am sure that if Clausewitz were writing his work today, he would select as the classic example in support of his thesis on war and policy the Soviet conduct of political and military affairs during World War II, wherein each political object achieved was attained by skillful interplay of factors and circumstances with friend and foe alike. This adroitness has also been displayed since World War II, and Korea is an example of their readiness to use war as an instrument of policy where the political object cannot be attained otherwise and when the outlook for military success promises well.

In hindsight, and with the Communist-Clausewitz philosophy of war and policy in mind, their intervention after the defeat of the North Koreans should not have come as so great a surprise, for to allow large unfriendly forces along the Yalu, and adjacent to the sensitive areas of Manchuria and Siberia, would most certainly have been incompatible with Communist policy.

Mao Tse-tung's brand of communism parallels that of his Soviet contemporaries, although it is influenced in its military aspects by the teachings of the an-

cient Chinese military philosopher Sun Tzu. Lacking resources, Mao was forced to pursue his special course of action through lesser forms of war—strategems and partisan activity—for many years. The advent of the Sino-Japanese War gave him the opportunity to play each side against the other to his own profit. He is said to have described his strategy as 70 percent self-development, 20 percent compromise, and 10 percent fighting the Japanese.

The vacuum left by the Japanese collapse, together with support from the Soviets, politically and in the nature of captured Japanese weapons and supplies, greatly strengthened his military power and position.

On the concurrent disintegration of the Chinese Nationalist position much has been written, and space does not allow a discussion here.

It is clear, however, that politics, domestic and external, played the major role in the fall of China; war was only an incidental instrument.

Mao's lack of hesitancy to resort to war with ruthlessness equalling that envisaged in Clausewitz's theoretical conception of war was displayed in Korea.

The remark has been made that if Mao were to occupy the Kremlin, the activities of the present Soviet leaders would seem peace-loving indeed.

Our own attitude toward the philosophy of using war to further politics has been inconsistent and enigmatic. If we accept as axiomatic that a nation imbued with this philosophy would maintain armed forces proportionate to the needs of policy, then we could conclude that we have never subscribed to the theory, for, until very recently, we have always been notoriously unprepared for war. Unfortunately, this conclusion would not accord with the facts. Although Clausewitz was not translated into English until 1873, the United States, before that time and actually before his

book was written, had given substantiation for his thesis.

### American Doctrine

Our very first act, the Revolutionary War, was a deliberate resort to war to further our policy of independence. At the beginning of the nineteenth century, we sought to avoid involvement in war through political acts, such as the Embargo Act of 1807, yet, in 1812, obsessed with the idea of conquering Canada, we declared war on England, even though a political settlement, much in our favor, appeared to be highly promising. In 1823, we promulgated the Monroe Doctrine with the expressed intention of using war to enforce our policy, although the only appreciable force available was the momentarily friendly British Navy. The Mexican War provides an excellent example of the concurrent pursuit of political intercourse and military operations which Clausewitz considered as normal. In the Spanish-American War, as in the War of 1812, we deliberately chose war on public demand, even though Spain sought mediation and offered favorable terms.

It is difficult to understand our contradictory policies in the two world wars. In World War I, the timely proclamation of Wilson's "Fourteen Points" provides an excellent example of the employment of sound political measures to further military efforts and to secure desired political objectives.

Not only did they undermine the will to resist of the Central Powers, but, as Doctor Edward Mead Earle pointed out in his *Makers of Modern Strategy*, they completely frustrated Lenin's plans for a psychological drive for world revolution based upon a "no annexation, no indemnities" people's peace.

Conversely, in World War II, our "Unconditional Surrender" policy, and the Morgenthau proposal to convert Germany into a pastoral state, stiffened the will

to resist and made the conduct of military operations more difficult and costly. "Unconditional Surrender," in itself, could hardly have been considered a complete policy, for its principal effect was the creation of one political vacuum in the heart of Europe and another in the Far East, which were bound to aggravate further the problems of the world.

### World War II Policy

What our over-all policy actually was in World War II is not clear. Writings since the war lead to a suspicion that one political object might have been to coax the Soviets into the circle of peaceful nations and thus ensure a future harmonious world. If this is so, some historian writing in the distant future, with the knowledge at hand of events yet to come in our time, or that of our children, may declare that this political failure, and its aftermath, Korea, had their fortuitous effect in that, like Pearl Harbor, they awakened us to our peril and forced us to take adequate measures for survival. This may prove so, but at the moment we can only record chagrin and disillusionment.

All these political and military excursions we engaged in without the inspiration of Clausewitz. His work, *On War*, has never been used as a text in our military schools. What recourse we have had to his theories has been in the fields of tactics and military strategy rather than in the philosophy of war. Also, I am not aware of any great preoccupation with Clausewitz among our succession of political leaders. Normally, we have been prone to overemphasize the military aspect of war with inadequate concern for the political results which follow. Whatever co-ordination of military and political policy was effected, was accomplished at the highest level, by the President personally. It was not until December 1944, under the pressure of acute military war-

time problems, that a subordinate agency, the State-War-Navy Co-ordinating Committee, was established to reconcile political and military considerations. World War II taught us the inseparableness of the major factors that go to make up our national existence—the political, military, economic, and socio-psychological factors. Our governmental structure has been reorganized to effectuate proper integration of these fields. The individual service war colleges have broadened their curricula to include study in these related areas. The National War College has been established for the specific purpose of studying the interrelationship of these factors in the formulation of national policy, and its student body includes representatives from the State Department and other civilian governmental agencies, as well as from the services.

#### The Present Problem

My final topic concerns the importance to the United States in the present-day world of the theory of the use of war as an instrument of policy. Experience in World War II and the potentialities of modern weapons make it obvious that total war is extremely expensive in both human and material resources to victor and vanquished alike. We realize also that another general war, even though won, would result in drastic modifications of the institutions and way of life we wish to preserve, and in the degeneration of human values throughout the world. Our policy, then, is to preserve world peace, and to attain our political aims and the settlement of international disputes through peaceful means. Unfortunately, this concept is not universal. The principle of the use of war, and the threat of war, as an instrument of policy, remain fundamental in Communist philosophy, although the implications of modern, total war urge caution in its general application. We have seen in Korea a resort to limited war when the prospects

for achieving aims through political measures were on the wane and the promise of military success good.

Can we believe that given a similar set of circumstances on a worldwide scale the same course would not be pursued? To do so would be to discount current Communist philosophy and to fail to view in proper perspective the magnitude of the states involved. At no time in history have the tools existed to perpetuate world domination, once achieved, to the extent that they do today. For, paradoxically, although nuclear weapons and long-range carriers tend to discourage war, they are the controlling elements in power balance and, in the sole possession of an unscrupulous and ruthless master, they provide an immediate and relatively inexpensive means of enforcing his will by threat of or actual employment at any point in the world. The implications are clear.

The loss of a general war and resultant exclusive possession of these controlling elements by the Communist bloc could well shape the course of history for the next thousand years as Hitler envisaged. So, although we strive to preserve peace, we must be prepared for war with no doubt as to our ability to win it—peace secured through power—a strange marriage, but one enforced by the circumstances.

Our policy embodies the maintenance of a strong political and military posture that would make the success of current Soviet policy unlikely and the prospects of their success in war highly improbable, with the hope that they may see no course other than to modify their policy. Some measure of our progress in this endeavor may be gained from the frequency and vehemence with which the epithet "war-mongering" is hurled at us. This charge is made in all sincerity, for, in the peculiar logic that emanates from equally peculiar minds, the more we frustrate, by our political alliances and deterrent



military policy, attainment of their policy objectives, the more we are war-mongering. At the base of our deterrent military posture lies Clausewitz's concept of the stronger form of war, the defensive-offensive war, the essence of which is the preservation of vital areas and the guarantee of means and a base for retaliation, swift and strong—the flashing sword of vengeance.

We can also turn to Clausewitz for encouragement in our chosen course for he states:

*If . . . we picture ourselves a defensive (defensive-offensive)\* as it should be, it includes the greatest possible preparations of all means, an army (armed forces) inured to war, a general (leader) who awaits his adversary not in anxiety from a feeling of uncertainty, but from choice, a cool presence of mind . . . and, lastly, a healthy people who fears the enemy as little as he fears them. So provided, defense (the defensive-offensive), confronted with attack, will no longer play so poor a part, and attack will no longer seem so easy and infallible.*

Essential to both our military and political posture is the active or sympathetic co-operation of allies. To my mind, a United States isolated under Communist encirclement could only become a garrison state, and we would have already lost freedom, as we see it now, without a struggle. In trying to attain this co-operation, patience and understanding are needed, for we cannot escape the fact that, despite the progress made in developing a world viewpoint, the paramount concern of each nation is still its own national destiny. We can recall our own delay of almost 3 years in joining our Allies in World War I, and that in World War II we needed the precipitous push of the Japanese.

The course we follow, although the least

\* Parenthetical insertions in this quotation are those of the author.

costly we can safely pursue, is and will be expensive as long as the present threat remains. We must be careful that in laudable efforts to achieve a balanced budget and tax reduction we provide adequately for our essential military requirements. The problem is not what we can conveniently afford for our defense, but, put bluntly, what can we afford for our survival? According to recent reports, we represent 6 percent of the world's population, yet, we enjoy 40 percent of the world's income. Also, our gross national product for 1953 is estimated to approach 400 billion dollars. It would appear that we could allot sufficient amounts for essential defense requirements without approaching the brink of economic disaster. While expenditures for defense are not an investment like a road or a school, they are, perhaps, even more important for they make secure the roads, schools, and way of life; and, incidentally, research and development to satisfy military needs have caused great advances in civilian fields, particularly those of aircraft and electronics.

In everything I have written so far, it is assumed that war has not yet reached the stage of being capable of decision by one blow or several simultaneous blows. This consideration would require a complete reassessment. All that I can do in the space remaining is to turn again to Clausewitz and to repeat his observation that:

*If the issue in war depended on a single decision or several simultaneous decisions, the preparations for that decision or those several decisions would naturally have to be carried to the last extreme. A lost opportunity could never be recalled; the only standard the real world could give us for the preparations we must make would, at best, be those of our adversary, so far as they are known to us, and everything else would . . . be relegated to the realm of abstraction.*



# MILITARY NOTES

## AROUND THE WORLD

### UNITED STATES

#### 'Search' Helicopter

The Navy's *HUP-2* helicopter, carrying sonar equipment, has been undergoing tests for antisubmarine warfare for the past 2 years. With this equipment, the *HUP* screens the waters ahead of a convoy or vessels of the fleet, to give advance warning of the presence of enemy submarines. While hovering over an area, the sonar ball is lowered by means of a cable and the sonar operator is able to take his



The *HUP* tests submarine detecting devices. readings immediately. The *HUP* is being used also to test methods to attack submarines to complete its hunt-and-kill mission.—News release.

#### Giant Helicopter

The Air Force's *YH-16 Transporter*, the world's largest tandem-rotored helicopter, was flown at altitude for the first time re-



Huge helicopter undergoes altitude tests.

cently. The huge craft, capable of carrying 42 persons, was flown at speeds exceeding 130 miles an hour and at altitudes of between 3,000 and 4,000 feet. The craft, which weighs over 15 tons, exhibits very satisfactory maneuverability and control characteristics. A second, more powerful version, the *YH-16A*, was completed recently and is now undergoing engine governor testing in preparation for its first flight.—News release.

### Atomic Race

Recent reports indicate that the atomic arms race is getting more intense. Stockpiles of atomic weapons are estimated to number in the quite large four figures for the United States; in the large three figures for the Soviet Union; and in two figures for Great Britain. In 9 years, the United States has exploded 49 nuclear weapons and devices. The Soviets have exploded about 10 in 5 years. Looming in the near future are hydrogen bombs that can destroy a city but are small enough to be carried by single-seat fighter bombers. They may also be used as warheads for guided missiles of medium size.—*Aviation Age*.

### Hot Weather Uniform

Hot temperate zone tests are being conducted of the Army's proposed all-purpose hot weather uniform and lightweight load-carrying equipment. The jacket resembles an African bush jacket, is lightweight, and green in color. The green shade is designed for camouflage in tropical and temperate zones. The new outfit has been designed to improve the appearance of the present combat uniform. The new load-carrying equipment has lighter, wider, and padded webbing. Its purpose is to provide a more comfortable pack and at the same time to decrease the number of items and weight an infantryman carries into battle. About 20 items will be eliminated with the new pack, including the pistol belt, cartridge belt, and cargo pack.—News release.

### Reactivate Air Force

The Seventh Air Force has been reactivated with headquarters at Wheeler Air Force Base in Honolulu. The first major unit to be assigned to the Pacific Air Force, it will take active control of Air Force bases and units in the central and eastern Pacific, except for the Military Air Transport Service.—News release.

### Tiny Gyro-Compass

The development of the *Mark 22*, the world's smallest nautical gyro-compass—light enough to be carried by small naval or civilian craft—was announced by the Navy. The compass will permit small craft to navigate with direct reading true-north accuracy for the first time. Small craft now use the magnetic compass, which must be corrected at each reading to obtain true-north accuracy, as the master gyro, used on larger ships, weighs 900 pounds. The Navy anticipates widespread use of the new instrument in the fleet, particularly on certain landing craft and amphibious vehicles of several types. Its development brings nearer reality a naval goal to improve beachhead operations, by equipping landing craft and other vehicles with gyro-compasses to assure precise maneuvers and pinpoint landings in combined arms assaults.

The device has proved its accuracy during sharp, fast turns of speeding boats, in adverse sea conditions, and in beachhead operations. The 9-pound *Mark 22* occupies less than one-half cubic foot of space. It fits easily on a shelf close to the steering station, so that a steering repeater system is unnecessary. Its extreme simplicity permits operation by personnel without specialized gyro-compass training, and its design simplifies easy replacement in the field of complete units or components as required.—News release.

### 'Terrier'

The Navy's new antiaircraft weapon, the supersonic guided missile *Terrier*, is capable of being fired from either shipboard or ground stations. It has recently completed its test program which began in the spring of 1952. The slim, needle-nosed missile, is designed to intercept aircraft at much longer ranges and higher altitudes than conventional antiaircraft weapons under any conditions of visibility.—News release.

### One-Man Helicopter

Research and development contracts amounting to \$400,000 have been placed by the Navy with two helicopter manufacturers for construction of rotorcycles—one-man portable helicopters. The flight models will be completed within 1 year. The Marine Corps is seeking a portable, lightweight, rotorcycle type helicopter to be used for observation, liaison, escape and evasion, and small unit tactical maneuvers. Both designs selected by the Navy are for a machine which can be collapsed into a small package for easy transportation, and quickly assembled. Propulsion for both rotorcycle designs is a Nelson, 4-cylinder opposed, 2-cycle air cooled gasoline engine. One plane is a single 2-blade rotor with a small tail rotor, while the other design calls for a coaxial, contra-rotating 2-blade rotor arrangement with a fixed tail stabilizer.—News release.

### Illumination Control

A project, designated as *Conillum*, to control the "sky glow" in the areas of our larger cities was announced by the Federal Civil Defense Administration. The purpose is to reduce the shaft of light reflected from the normal lighting pattern of a modern city—visible at high altitudes—and to reduce lighting in specified areas to minimize the danger of silhouetting vessels against coastal lights.—News release.

### Jet Flying Boat

The Navy's first water-based, long-range strategic jet bomber, the *XP6M Seamaster*, will begin its flight test program in the spring. Many of the details concerning the new flying boat are still classified, but it will be powered by four *J-71* jet engines with afterburners, putting it in the 600-plus miles an hour class. The engines will be buried in the wings. The plane will have an internal bomb bay built into the hull.—News release.

### Nuclear Propulsion Research

At a cost of approximately 10 million dollars, the Air Force plans to provide a facility in connection with a portion of the Aircraft Nuclear Propulsion Program. It will consist of a research and development laboratory.—News release.

### Winterization Equipment

Winterization equipment which will enable operation of *L-19* planes in temperatures as low as 60 degrees below zero is being tested in the severe cold of Big Delta, Alaska. A 25,000 BTU heater is included in the equipment. Another component is a 4-inch engine preheater hose. One end of the hose is attached to the heater while the other end is placed under the engine cowling. Nose shutters, electric oil dilution, electric primer, internal window defrosters, and a carburetor heater unit connected by tubing to the heater muff also will undergo the tests.—News release.

### Seek Pilots

Approximately 1,000 additional pilots and pilot trainees are needed to fly versatile light planes and helicopters assigned to Army units of the National Guard. These pilots will fly the latest available Army aircraft, including the multipassenger *L-20*, the *L-19*, and the maneuverable Army *H-13* helicopter, used for artillery spotting, rescue, aerial photography, reconnaissance, and many other missions. Especially sought are civilians with or without flying experience who can qualify for National Guard commissions. Those accepted will be assigned for initial flying training in conventional fixed-wing type planes with the United States Air Force at Gary Air Force Base, San Marcos, Texas, and an advanced Army Aviation tactical course at Camp Rucker, Alabama. On successfully completing their training, candidates will be rated as Army aviators.—News release.

## Heliport

Dedication ceremonies were conducted recently at what is believed to be the world's first military airport designed and equipped exclusively for helicopters. Felker Heliport, as the field will be known, is located at Fort Eustis, Virginia. The field has been developed as an adjunct of the Army Aviation Program to be used for helicopter unit training and as an experimental port of rotary wing operations. It is in the form of a giant wheel, fringed by a circular taxiway, and divided into quarter sections by two macadamized 600-foot runways. Spotted around the outer edge are eight circular landing pads. Both runways and pads will be used as takeoff and landing areas by helicopters. The runways will be used under heavy load and certain atmospheric conditions requiring short takeoff and landing runs. Adjacent areas include a large hangar capable of accommodating the largest cargo-type helicopters and providing enough room for five maintenance shops. There is also an administration building complete with glass-enclosed control tower and a large warehouse for supplies.—News release.

## Weapons Command

With the establishment of the Army Ordnance Weapons Command, a single field command has been assigned the responsibility for direction of the development, procurement, production, maintenance, and major aspects of supply management of many of the complex weapons systems which have become an essential part of the Army. From its headquarters at Rock Island, Illinois, the Command will be responsible for the wide range of small arms and artillery weapons, from the pistol and rifle through machineguns and mortars to heavy artillery such as the 280-mm cannon. The Command will include the Rock Island Arsenal, the Watertown Arsenal, and the Springfield Armory.—News release.

## Guided Missile Target

A rocket-carried parachute that is automatically zipped open at high altitudes will provide an inexpensive target for guided missiles. Developed by the Navy Bureau of Ordnance, it is the first high altitude target designed for guided missiles and will provide a cheap substitute for pilotless aircraft used for lower altitude targets. Known as "Pogo," the parachute has a diameter of 20 feet and is packed into the nose of a small 13½-foot rocket. The rocket is fired vertically from a portable launcher to the desired altitude where a strong spring ejects the parachute. The silk is coated with a thin layer of metallic silver to reflect radar signals, and at high altitudes it resembles an aircraft on the radar scope. It floats to earth slowly and can be fired at by more than one guided missile according to the report.—News release.

## Academy Catalogue

The new United States Air Force Academy Catalogue contains 53 pages of information regarding the new Academy, proposed courses of instruction, and the requirements and procedures for admission. The catalogue is being mailed to public libraries, high schools, colleges, universities, Air Force bases, Air Force recruiting offices, Congressional offices, and Air Force ROTC units. The Academy's curriculum has been carefully developed and reviewed by a number of senior Air Force officers and over 60 civilian educators. It covers two main areas—the Social Humanities Division and the Scientific Division. The course of study will lead in 4 years to a baccalaureate degree, and graduates will be commissioned as officers in the Air Force, be qualified as aerial navigators, and hold the aircraft observer rating. Qualified graduates of the new Academy will proceed to a flying training school to complete pilot training.—News release.

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### **Electronic Locator**

A radar device for locating the source of mortar fire has been developed jointly by the Signal Corps and a civilian firm. The first models were actually battle tested in the later phases of the Korean conflict, and the device is now in the hands of United States ground troops in several theaters. With this locator, troops can detect and "lock on" the path of enemy mortar shells, tracking their trajectory back to the source, and revealing the position from which they are fired. The device is compact and can be towed by a light truck. It includes an automatic radar tracker with dish-shaped antenna, a gasoline motor generator, and radar scope console.—News release.

### **Test Cell**

To determine what happens to different types of high explosive shells fired at high altitude and high speed, the Air Research and Development Command has awarded a contract for a high altitude armament test cell. The test cell will provide wind tunnel test provisions for incendiary and high explosive shells fired through a subsonic air stream, about Mach .85 or just below the speed of sound, into a typical wing section of an aircraft. Just below this wing section will be a tank of high octane gasoline of jet fuel just as it would be stored in an actual aircraft. Television, motion picture cameras, and other instrumentation will record the effects of the high explosive shell on the wing section as it passes through the high speed stream of air and on the fire that results. Altitude conditions up to 60,000 feet with a temperature range of from minus 90 degrees to plus 160 degrees Fahrenheit will be created in the test section. The test section will be controlled from the facility's fire control room and because of safety precautions no personnel will be permitted in the immediate area during test operations.—News release.

### **'Geodimeter'**

A precise distance measuring instrument with an accurate operating range of up to 50 miles under excellent visibility conditions, designed for use in military surveying operations, is undergoing tests at the Corps of Engineers' Research and Development Laboratories. The "geodimeter" is an electronic-optical device with which measurements can be made by using a fundamental constant—the velocity of light. It is designed primarily for the determination of geodetic distances, such as precise lines used in triangulation, but it can also be used under special conditions for surveying by trilateration methods. Measurements are obtained by determining indirectly the time interval for a light beam to travel from the device to a distant plane mirror and return to the instrument. With the velocity of light already known, distances can be readily computed. The weight of the entire unit, including its 300-watt power supplying portable engine generator, is only 327 pounds. Measurements can normally be made in 2 to 3 hours using a procedure to obtain about 16 separate measurements. The computations can be accomplished in about 30 minutes. It is believed that the machine will be useful for checking other types of distance measuring equipment, such as the radar type which has certain critical factors.—News release.

### **'Paraplane II'**

A plane, known as *Paraplane II*, can take off and land in an area no larger than that required for safe helicopter operations. It has been flight-tested for the Army and is said to have remarkable maneuverability at slow speeds. It can hover at 19 miles an hour with power without losing altitude according to its designers. Its top speed is 120 miles an hour; wing span, 20 feet, 5 inches; length, 21 feet, 11 inches; and height, 6 feet, 5 inches.—*Aviation Age*.

## GREAT BRITAIN

### 'Flying Bedstead'

A "strictly experimental" model of a vertical takeoff aircraft has been successfully launched in Great Britain. Known as the "Flying Bedstead," the model consists of two horizontally opposed jets with their exhaust ducted downward beneath the pilot.—*Air Training*.

### Replace Trucks

Declaring that the real brake on the mobility of an army was its dependence on fixed lines of supply and transportation, on established ports, roads, and railways, the leaders of the British Army have decided to take the Army off its leash by switching from trucks to helicopters for military transportation and supply. The switch will begin this year.—*The Aeroplane*.

### Heavy Bomber

The first 4-jet crescent-wing aircraft, the *Victor*, is claimed to fly faster and higher with a greater bomb load than any



Britain's heavy bomber packs mighty punch.

other bomber. Its four *Sapphire* jet engines, buried in its wings, give it the power of 10 World War II heavy bombers. The plane is in superpriority production for the Royal Air Force.—*News release*.

### Speed Travel

In an effort to solve the problem of getting out to airports located some distance from the city, Great Britain will inaugurate a new helicopter system in the near future. The service will feature two *S-55* helicopters which seat eight per-



New helicopter service will speed travel.

sons and will operate between London Airport and the center of London. The trip is made in 18 minutes, while by road, it takes an hour.—*News release*.

### Standardization

Under study are negotiations between the United States and Great Britain on the standardization of certain types of guided missiles for mutual benefit and economy. Through the exchange of visits, inspections, and technical data greater emphasis is now being given to the two countries working together on research and development.—*Air Training*.

### Huge Helicopter

The construction of a 450-passenger helicopter is planned by a British firm. Specifications call for an unloaded weight of 92,000 pounds and a gross weight of 206,000 pounds. Proposed power plant for the giant would be a *Sapphire* turbojet at each rotor blade tip.—*Air Training*.

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## FRANCE

### Milk Ration

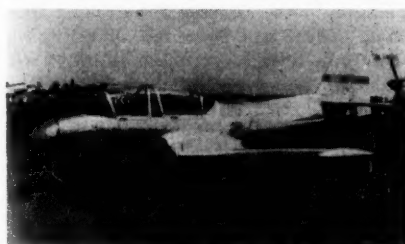
In addition to his daily ration of a pint of strong red wine, the French soldier will now receive a daily ration of a quarter of a pint of milk to be distributed with his morning coffee. Milk is one of the country's surplus products.—News release.

### Land Catapult

Tests conducted in France recently permitted an artillery observation plane to take off in a space of 65 feet with the aid of a *Schneider Fieux* catapult. The system is identical to that used on aircraft carriers and will permit artillery observation planes to be used on difficult terrain and landing strips which heretofore were not possible for them. The plane was able to land in a space of 40 feet.—News release.

### Jet Trainer

Designed as a primary jet trainer, the *Sipa 300*, is a tandem 2-seater with excellent visibility for formation flying. It is an all metal plane with retractable landing gear. The trainer is equipped with a laminar wing and a 3-frequency radio. It has a span of 25 feet and a



*Sipa 300* joins primary jet trainer planes.

length of 21 feet. The cruising speed is expected to be about 205 miles an hour and its range will be about 80 minutes. It may also be used as a liaison plane.—News release.

## AUSTRALIA

### Service Term

The 3-year period of service in the Regular Army Special Reserve has been reintroduced to replace the present 6-year tour. The Minister for the Army reported that the number of recruits now being enlisted was not sufficient to maintain the Regular Army at a strength necessary to meet existing commitments. It was felt that many potential recruits were being deterred from enlisting because they were not prepared to commit themselves initially to the normal 6-year tour. It is expected that the shorter term might overcome this problem.—News release.

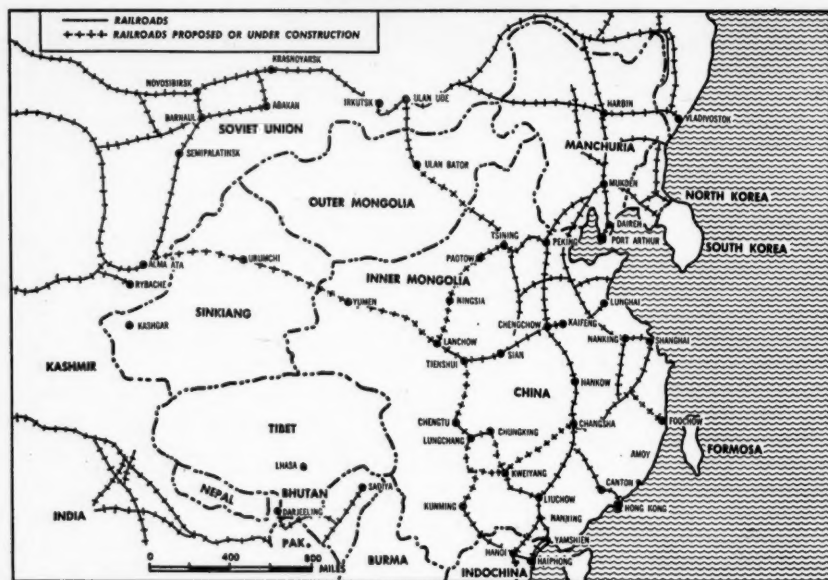
### Research Program

An atomic research program costing more than 12 million dollars and aimed at developing the best methods of producing industrial power from uranium was announced recently. The program is being undertaken in co-operation with the United Kingdom, and will be self-contained. To avoid duplication of effort, it will be related to similar work now going on in Great Britain. Recent nuclear information gained as a result of big expenditures on research has been passed on to Australia by Great Britain. An advanced type of nuclear reactor for research has been approved and it is expected to be located somewhere in New South Wales.—News release.

### Air Aid

As part of the nation's plan to strengthen northern Australia's air defenses, Port Moresby, Manus, and Darwin are scheduled to get all-weather airfields capable of taking any aircraft in the world. Under the plan, the Jackson Field airstrip at Port Moresby will be reconstructed at a cost of \$700,000. Darwin will get a new airstrip in addition to the present runway, which is Australia's longest. Manus Island will get a new strip.—News release.

## COMMUNIST CHINA



## Rail Net

Remote regions of central Asia and Outer Mongolia will be linked with the outside world by an elaborate railroad network if recent plans of the Soviet Union and Communist China materialize. The two countries agreed to construct the lines jointly and when completed they will link up with the Soviet system and provide two new overland routes between these countries which will be of strategic importance. The principal undertaking is the construction of a line from Lanchow, in northwest China, to Alma Ata, in Soviet Turkestan. Alma Ata is said to be the center of a great new agricultural and industrial development and is less vulnerable to attack than eastern Siberia. Work has started but it is expected to be 5 years before it is completed.

The second joint railroad project will link Outer and Inner Mongolia and calls for extending the line which now runs

from the Trans-Siberian Railway to Ulan Bator, the capital of Outer Mongolia, down into China. There it will join the railroad which now runs westward from Peking to the Inner Mongolian city of Paotow, in the Chinese Province of Suiyuan. There will be gauge difficulties on these two lines for Chinese railways are standard gauge, 56.5 inches, while the Soviets use the broad gauge, 60 inches. The trip by road from the Chinese seacoast to Alma Ata now requires 2 months.

The Chinese are pushing the expansion of their interior railroad system and are reported to have 15,300 miles in operation. They plan to construct a third rail link with Vietnam, running from Yamhsien in Kwangtung to Hayshong. The Chinese are now making their own rails and locomotives but there is evidence they are not keeping pace with the demand for the latter.—News release.

## USSR

### Antiaircraft Rocket

The most advanced Soviet guided anti-aircraft rocket, the Henschel HS-117 "Butterfly," is said to be capable of reaching aggressor aircraft with a 50-pound warhead at speeds up to 700 miles an hour within a 20-mile range of the launching point. The missile has two solid fuel auxiliary rockets, which are dropped from a frame after the vertical takeoff, in addition to the fuel located in the main hull. The rocket is approximately 13 feet long and has a takeoff weight of 1,000 pounds.—*Air Training.*

### 'MiG-19' Interceptor

The MiG-19, undoubtedly derived from a German design by Kurt Tank, is apparently an interceptor of very high speed but short range of action. It is armed with four 30-mm cannon mounted in the nose of the fuselage. It is a high wing monoplane with swept-back wings, a short stubby fuselage, fixed vertical rudder with considerable sweep-back surmounted by a fixed, horizontal tail assembly element, also swept-back, giving it a very characteristic silhouette. It is said to have a M.012 turbojet engine of 7,480 pounds thrust, with a speed of about 745 miles an hour.—*Forces Aeriennes Francaises.*

### Aluminum Output

With the establishment of aluminum production facilities in Poland, Czechoslovakia, Hungary, and Romania, the output of aluminum, the prime factor in the Soviet aircraft industry's capacity, is expected to be increased materially. Efforts are being made to put the new plants into full-scale operation. The same is true of East Germany, where production capacity is put at 100,000 tons annually. It was estimated that the aluminum output in the Soviet Union herself was 273,000 tons in 1951. It was supposed to increase to 600,000 tons in 1955.—*Aviation Age.*

### Defense Pool

A pledge to pool their armed forces and put them under a joint command if the Western powers ratify the Paris agreements to rearm West Germany has been signed by the Soviet Union and seven Eastern European Communist states. According to the report, the signing concluded a 4-day security conference called by the Soviets to counter the West's defensive alliance, NATO, with an eastern version. If the Paris accords are ratified by the West, the Communist bloc will be reconvened to put its mutual security pact into effect. It is expected that a Soviet marshal will be named supreme commander of whatever joint command is established. With East Germany signing the pledge, it is an indication that the Communists feel that country should have armed forces to contribute to the pool.—*News release.*

### Air Status

At the present time the Air Force of the Soviet Union is reported to have available more than 56 fighter and fighter-bomber divisions, 8 tactical bomber divisions, and 3 strategic bomber divisions. It is estimated that three additional strategic bomber divisions could be ready for action within a month after the outbreak of a war. According to information the active air force is stationed in the following areas: .1 on the western European frontier of the Soviet Union; .1 on the frontier areas facing Turkey and Iran; .1 on the frontier facing India; .1 in central Asia; approximately .5 in the Far East; and about .1 in reserve in the Ural region. Numerous airfields are reported to be in the process of construction in the Minsk region, with hard-surfaced runways for long-range bombers. According to the report, a large air base is said to be under construction on Franz Josef Land near the Arctic Circle.—*Flugwehr und -Technik.*

## SWEDEN

### Antiaircraft Gun

The development of a medium caliber antiaircraft gun, the 40-mm Bofors L170, which is completely automatically controlled has been announced. The length of its barrel is 110.24 inches and it weighs 10,120 pounds. The gun has a rate of fire of 240 rounds a minute and a muzzle velocity of 3,280 feet a second. Each shell is provided with a light tracer charge which burns for 4.5 seconds. The gun has a maximum horizontal range of 13,120 yards. The shell requires 2.4 seconds to reach a height of 6,560 feet. After a flight of 8 seconds, the shell automatically detonates.—*Deutsche Soldatenzeitung*.

### Air Strength

The Soviet Union now has the largest air force according to a Swedish Air Force publication. This is followed by the United States, and then come Great Britain and Communist China. Sweden is now fifth but it is felt that France will soon take over this spot. Canada will probably move into the sixth spot, and if Germany and Japan are able to meet goals set for them, will move ahead of Sweden according to the publication. It was reported that rapid expansion was taking place in Poland and that soon that country would have a larger air force than Sweden. As a result, Sweden will put more emphasis on research.—*Aviation Age*.

## DENMARK

### Mineral Find

A rich find of deposits of lead and zinc at Mesters Vig in East Greenland has been substantiated. Actual mining is expected to begin by the spring of 1956 and the first shipments of ore will be made in the summer of that year when ice permits. The deposits now mapped are expected to last 6 to 7 years and indications are that other deposits will be discovered.—*News release*.

## EAST GERMANY

### Jets Reappear

Soviet Air Force jets have begun to reappear in large numbers on East Germany's airfields after an absence of about 1 year. According to available information, single- and twin-engine fighters and twin-engine bombers have been observed at Döberitz-Elsggrund, Finow, and Werneuchen.—*Aviation Age*.

## SWITZERLAND

### Automatic Gun

A twin-barreled Hispano-Suiza 34-mm medium caliber antiaircraft gun, completely automatically controlled, has been developed recently. According to the announcement, the barrel is 99.11 inches long and the weight of the gun in firing position is 7,920 pounds. It has a rate of fire of 600 rounds a minute and a muzzle velocity of 3,214 feet a second.—*Deutsche Soldatenzeitung*.

## TURKEY

### Nitrogen-Producing Plant

The first nitrogen-producing plant to be constructed in this country is to be built by a West German firm at Kutahya at a cost of 26 million dollars. Nearly 22 million dollars of the estimated cost is for specialized equipment and installation, with the balance representing the cost of land, factory buildings, and workers' quarters. The plant will use 240,000 tons of Turkish lignite and 80,000 tons of gypsum from the Eskisehir area each year to manufacture nitrogenous fertilizers for the country's fast-expanding agriculture, as well as nitric acid for national defense requirements. Under the plan, annual production is expected to include 60,000 tons of ammonium sulphate fertilizers, 30,000 tons of ammonium nitrate fertilizers, 1,000 tons of pure ammonium nitrate, 1,000 tons of ammonia, and 6,000 tons of concentrated nitric acid. This will represent a large saving in foreign exchange.—*News release*.

# FOREIGN MILITARY DIGESTS

## Soviet Asia, a Military and Political Review

Translated and digested by the MILITARY REVIEW from an article by  
A. L. Ratcliffe in "Wehrwissenschaftliche Rundschau" (Germany), No. 8, 1954.

"ASIA for the Asians," was one of the slogans with which the end of the colonial era was demanded at the Geneva Asiatic Conference. The Soviet foreign minister welcomed this expression of will on the part of the Asiatic lands, but there is little likelihood that his approbation stemmed from honest conviction. For, as a matter of fact, since the legendary Cossack, Jermak, conquered the watershed of the Urals at the beginning of the sixteenth century and, pushing on to the east, opened the way for the Kremlin to the Pacific Ocean, the Soviet Union has been the greatest colonial power in Asia—if not on the entire globe.

Under the impact of the dramatic developments in Korea and Indochina, the remaining portions of Asia have slipped into the background of general interest. Particularly, outside of the Soviet Union, it is hardly realized that out of the 16.6 million square miles of the main part of the earth's surface, more than one-fourth—4.25 million square miles—belongs to the Soviet Union. This apparent obliviousness of the vast extent of the territorial

possessions of the Soviet Union is furthered by the absolute silence maintained by the Moscow Government over everything occurring in Soviet Asia.

In forming an opinion of the strategic significance of Asiatic Russia, it will be useful, first, to recall a few pertinent facts of a military and geographic nature.

The ensemble of the Asiatic portion of the Soviet Union between the Ural Mountains and the Pacific Ocean, and between the Arctic Ocean and the Pamir Plateau, is commonly designated as Siberia, in Western parlance. This geographic definition is not accurate, however, inasmuch as Siberia comprises only the Asiatic portion of the Soviet Federated Republic, while in addition to this, 5 more of the total of 16 Soviet republics which enjoy, theoretically, equal rights, are situated in Asia. These are Turkmenistan (capital city, Ashkhabad), Uzbekistan (Tashkent), Tadzhikistan (Stalinabad), Kirghistan (Frunze), and Kazakhstan (Alma Ata). In the face of the pronounced Soviet centralization and Moscow's rigid and even detailed control, the autonomy of these

countries is, however, fictitious. Extending over a distance of 1,250 miles, they cover the strongly differentiated Asiatic area between the Caspian basin and the Altai Mountains. The well watered mountain areas with the mighty massifs of Iran and the Pamir Plateau, drop down in the north, to the monotonous Turanian lowlands which then give place to the arid Kirghiz Steppes. Northern Asia, in its east-west extension of more than 3,700 miles, is the real Siberia. This great area is divided naturally into eastern, western, and central Siberia by great rivers which, with the exception of the Amur which flows into the Pacific, empty into the Arctic Ocean.

### Geography

Physical conditions naturally differ in an area of almost continental size. Schematized for the sake of simplicity, Siberia presents about the following picture:

The extreme north is frozen tundra. This is succeeded by an almost entirely uninhabited wooded zone, the *taiga*, which in western Siberia—the greatest lowland area on earth—changes to productive steppe terrain. In central and eastern Siberia are found wooded highlands with numerous rivers and lakes, alternating with undulating steppes. On the south, Siberia is bounded by the Kirghiz Steppes, the lofty Altai Mountains and the Mongolian and Manchurian foothills.

The northern coastal region with its arctic climate—which, however, is not sufficiently severe to prohibit settlements—changes, in the south, to a broad zone of continental climate with short, hot summers and long and very cold winters.

Agriculture is carried on over large portions of Siberia, south of the 60th parallel. The cultivated zone keeps pushing farther northward, however, and in some places has reached the 70th parallel—North Cape. The unquestionably great accomplishments of the Soviet government

in the Arctic in the way of colonization and, particularly, in the field of meteorology, have been little realized outside of the Soviet Union. To be sure, this activity is carried on forcibly and at the cost of heavy human sacrifices.

### People

Of the some 50 million inhabitants of Soviet Asia, a third, principally Mohammedans, are found in the five central Asiatic countries. In the eyes of the Kremlin, Islam, as constituting the antithesis of communism, must be combated. A forced deference for Pan-Islamic propensities prohibits, however, any overly rigorous action against the Mohammedan subjects of the Soviet Union. Their connections with the remainder of the Islamic world, however, are almost completely severed and for this reason it is difficult to estimate accurately, at present, the formerly strong capacity for opposition of Islam in the Mohammedan Soviet Republics. During World War II, the divisions from central Asia which were made up, for the most part, of Mohammedans, showed themselves to be dependable, and fought with bravery. Nevertheless, the Mohammedan regions still represent a weak spot in the Soviet system.

Also, the 35 million inhabitants of Siberia are only for the smallest part, Russians. It is true that all strategically important regions—as everywhere in the Soviet sphere of influence—are systematically planted with Great Russians, but the mass of the population belongs either to nomad tribes which only recently have been forced to live in permanent settlements or to subjugated ethnic groups of European Russia. Following the involuntary removal, immediately after 1945, of hundreds of thousands of Lithuanians, Latvians, Estonians, and Crimean Tartars to the provinces of the Far East, presently, the "voluntary" resettlement of several million Ukrainians in central and



eastern Siberia is under way, evidently, with the view to evacuating unreliable rural populations from the western frontier areas. These peoples are located in their new regions solely on the basis of economic considerations and without regard to climate. While on the American and Canadian side, little more than 300,000 persons live north of the Arctic Circle, several million live in this latitude in the Soviet area. A large number of settlements have been established along the coast of the Arctic Ocean. Soviet troops, also—especially units of the Air Force—are stationed north of the Arctic Circle.

Soviet Asia is weak in point of human potential but possesses great mineral wealth. Added to this is the vast timber reservoir of the north, and the fertility of great expanses of Siberia which renders possible the transformation of this infamous land into the granary of the entire Soviet domain.

### Industrial Potential

Even prior to World War II, the tendency existed to shift the Soviet economic center of gravity from European Russia to Asia. During the 1920s, the first great armament centers such as the well-known "Ural-Kuznetsk-Kombinat"—known popularly as *Kuzbas*—were established east of the Urals. The raw materials of the Urals of western Siberia were combined with those of Kazakhstan of the Altai Mountains—in many cases this combination involved a move of over 1,250 miles. The advance of the German armies started the great transfer of industries in 1941. Under the most difficult circumstances and within an extremely short period of time, 1,300 large manufacturing plants were removed from European Russia, transported across the Urals, and set up again in Asia. They were again, in part, in production by the spring of 1942. The Russian, often clumsy in organization, showed himself to be a master of improvi-

sation. In addition to these, 2,200 other armament works were in operation by the end of the war—thanks to the Lend-Lease Act. Since 1945, industrial development has been accelerated, especially, in central Asia. Production there has far exceeded that of European Russia. At the same time, agricultural production, especially of wheat and cotton, has been increased by means of irrigation.

The vastness of the area in which they are located and the remoteness of its coasts, afford the industries which have been established in Asia relatively effective protection against air attack in spite of their necessary concentration. Certain indications lead us to believe that, in addition to a large part of its armament reserves, the Soviet Government has also located its installations for the construction and testing of atomic weapons in central Asia in the neighborhood of the Chinese frontier. It is logical to assume that the violent reaction of the Kremlin to the Turko-Pakistan military alliance and to dealings of Pakistan with the United States, has some connection with this. Even the Soviet public learns little of what goes on in Soviet Asia. Occasional reports concerning production, atomic tests, or statistical figures are not up to date, and are inaccurate or purposely misleading. It is entirely possible that extensive industrial installations, large settlements, and new railway lines have been established in regions where the map today shows nothing but blank spaces.

### Bridging Distances

Because of their vastness, the bridging of distances is a matter of special importance in Soviet Asia, both from the economic and the strategic points of view.

For the transmission of messages, radio is used, mainly. Many regions, especially on the Arctic coast, cannot be reached in any other way. Wire connections are

found mainly along the railway lines. Their large amplifying stations constitute vulnerable nerve centers.

Recourse is being made more frequently to air lines for the transportation of passengers and mail. Even small villages often maintain airfields. A relatively closely-knit system of air lines has been created by means of the junction of the regional systems with the long-range continental systems.

For local transportation, the railway lines have been supplemented by good highways. In Siberia, motor traffic uses in summer the old natural routes—the so-called “tracks.” In central Asia, the motor truck has largely displaced the camel caravan.

During the ice-free period, the water routes of the interior contribute to the relief of the railways. The freight traffic ascends the rivers from transshipping points at their mouths on the Arctic Ocean, for distances up to 1,250 miles.

There is lively traffic over the Northern Sea Route from Murmansk to the Bering Strait during the 3 summer months. Strategically, the northern passage is only of limited worth. The aid of ice-breakers is necessary over large stretches of the route. Large vessels cannot pass from the Arctic into the Pacific because of insufficient depth of water. In case of war, smaller vessels would be threatened in the relatively narrow channel by mines or air attacks. Moreover, the passage of the Bering Strait, whose eastern shore is in American hands, would be difficult to force.

A complete description of the steadily expanding railway network in Soviet Asia is not possible owing to lack of reliable information. Thus, the railway network of eastern Siberia is never mentioned at all in the few reports issued by the Soviets. Our presentation must be limited to the mention of a few main lines which could serve in shifting the point of main

effort or be of significance in a concentration in areas close to the Soviet frontiers.

The backbone of the Siberian railway network is the Trans-Siberian Railway—*Transsib*—which connects Moscow with Vladivostok over a distance of 5,900 miles. It has lately been in process of transformation to a 4-track line over portions of its length. Its capacity has also been increased by technical modernization. In spite of this, however, well-managed shipments from Transbaikalia to the western frontier of the Soviet Union still require at least 10 days' time. One strategic bottleneck is the Yenesei crossing at Krasnoirsk, as the lines toward the east are combined at this point. Not until they have reached a point far to the east do they fan out into the actual Far East network.

At Harbin, the Southern Manchurian Railway, whose railheads are Port Arthur and Dairen, connects with that stretch of the *Transsib* which passes through Manchuria. At Mukden, it connects with the Korean Railway whose terminus is the port of Pusan.

The Northern Siberian Railway and the Amur Railway exist as auxiliary lines to the *Transsib*. The latter branches off at Chita, passes around Manchuria on the north, and divides at Khabarovsk into lines running to Vladivostok and to Nikolaevsk on the Sea of Okhotsk.

The Southern Siberian Railway—*Yug-sib*—is 2,235 miles long, and the Turkestan-Siberian Railway—*Turksib*—which is 1,615 miles long are the main links with the industrial establishments of the Altai region and the extreme south. Altogether, there are five direct or indirect links between European Russia and central Asia.

Exclusively strategic considerations were back of the construction of the two branch lines of the *Transsib* into Outer Mongolia. One of these lines gives way in the capital city of Ulan Bator to an

automobile highway which meets all transportation requirements and serves as an effective link over a distance of about 500 miles to Kalgan on the Chinese railway network. This route is presently in process of transformation to a railway line. By means of it, the Soviet Union will obtain a new southern outlet to the Pacific. The fact that this route traverses Mongolia and China is of secondary importance at the present time.

As a result of the threat to the *Transsib* arising from the American position in Korea and Japan, a new and less exposed transverse line has been built. This line, 1,860 miles long, connects the westernmost Chinese railway junction point, Lau Chan on the old silk route, with the *Turksib* in the neighborhood of Balkash Lake. A glance at the map of Asia reveals the strategic significance of this connection between the Soviet Union and China, a connection which is not subject to the influences of winter weather. The extent to which it has been developed is not known with certainty.

In the Soviet-Iranian frontier region west of the Caspian Sea, a branch line extends to Tabriz from the Soviet railway network. Here, strategically important highways leading to Turkey and Iraq have their beginning. East of the Caspian Sea is the Trans-Caspian Railway line which would be of operational importance in case of a concentration of forces for an attack on Iran or Pakistan. It leads from Krasnodod over the salt steppes of Turkmen to Tashkent, where it connects with the *Turksib*. Several branch lines have been pushed forward in the direction of the Iranian and Afghanistan frontiers.

It has been necessary for the Soviets to rely on the industrial regions of central Asia for all construction material and other requirements needed in railway construction since World War II.

In the face of the Soviet expansionism, it has been difficult to tell where the

Soviet frontiers really lie in many parts of Asia and even where they are discernible, they hardly signify anything more than the situation of the moment.

In the north, the Soviet claims of sovereignty extend as far as the North Pole. Making use of the controversial, so-called "Theory of Sectors" of international law, by which those states which border on the Arctic Ocean may assume possession of polar sectors using the Pole as their apex and the coast of their homelands as a base, the Soviet Union as far back as 1926 proclaimed her sovereignty "over all known or as yet undiscovered territory inclusive of more or less solidly frozen areas" between her coast and the North Pole. At that time, claims of ownership of the Arctic areas were of relatively little significance. This situation has changed, however, since that time, for with the advent of intercontinental air travel, a number of the most important air routes lead over the Pole. The territorial problems of the Arctic were still further complicated when the Soviet Union in 1952—clearly in connection with the development of her Northern Sea Route—declared those portions of the Arctic Ocean off northern and northeastern Siberia, Soviet inland waters and instructed her fighting forces to seize all non-Soviet merchant vessels found there and to force all foreign aircraft to land.

#### Strategic Bases

In case of war there would be practically only two ways for the Soviet Air Force to operate against the American Continent: from eastern Siberia against western Canada and the United States; and across the Pole against the industrial regions of northeastern America. Naturally, these short attack routes could also be followed by the adversary, but American aviation would also, in addition, have a considerable number of other possibilities of attack routes by virtue of

its worldwide system of strategic bases. Nevertheless, the assumption that North Polar regions could become a focal point of aerial warfare in an eventual war, cannot be relegated to the domain of mere fancy. On the Soviet side, a deep zone of airfields, radar stations, meteorological stations, and radio stations has been created along the shore of the Arctic Ocean. We may also presume that launching sites for long-range missiles have been established beyond the 82d degree of latitude and it is not unusual to see the condensation trails of Soviet reconnaissance aircraft along the edge of the American-Canadian security zone.

In the extreme northeastern part of Asia, the United States—with Alaska—and the Soviet Union have a common frontier on the Bering Strait. Only a 3-mile channel, at little Diomedes Island, separates the outermost outposts. In case of war, northeastern Siberia would be the takeoff base for Soviet long-range bombers. In addition to powerful air force formations, there are also several divisions of special troops standing ready in this area for use in the Arctic with their eyes, presumably, on Alaska.

The basis of Soviet power in the Far East is Transbaikalia, the Pacific coastal area from the East Cape to Vladivostok. The Soviet Union here borders on the Pacific Ocean for a distance of approximately 6,200 miles. It is true that matters pertaining to naval advantages are of secondary interest only to the greatest of land powers. The United States with her Seventh Fleet and her aviation based in Japan and Formosa, clearly possesses supremacy in the eastern Asiatic waters, yet the Soviet naval forces—primarily submarines—find here the freedom of movement denied them in the Baltic and the Black Seas and which they possess only to a limited degree in the North Atlantic. Most of these submarines are based at the naval base of Port Arthur—

leased from China—since Vladivostok is blocked by ice 3 months of the year. World War II placed the Soviet Union in possession of the southern part of Sakhalin and of the Kurile Islands. Since Sakhalin was joined with the coast by means of a causeway in 1952, it has become, practically, a part of the mainland. In this way, the Soviet Union has pushed to within about 31 miles of Japan. Only La Pérouse Strait separates the two powers, who have not yet signed a treaty of peace. Occasional clashes on the water and in the air of the still disputed Kuriles characterize the difficulties of the situation there.

The Soviet "Far East" Army Group which is stationed in the Transbaikalia Military Area—Chita—has always been one of the nuclear bodies of forces of the Soviet Army. In front of it lie Manchuria and China.

### Political Picture

It has been said that there is no possibility of being certain about the policy of the Kremlin; that there exist only varying degrees of uncertainty about it. This is even more true as regards the relationship between Moscow and Peking. This uncertainty was not reduced in the least at Geneva.

The Soviet Union and Communist China are political friends—not least of all because of an unrealistic policy on the part of the Western governments. In addition to this, in the framework of the Mutual Aid Agreement of 1950 they are military allies. This alliance becomes effective the moment one of the partners is attacked by Japan or a power group allied with Japan. Since Japan is bound to the United States by a security pact, it is not difficult to understand the circumstance under which the alliance would become operative.

In the relationship, Soviet Union-China, the Soviet Union must be said to be the stronger partner, and she is doubtless

interested in maintaining this condition as long as possible. When Mao, who is first of all a soldier, has completed the modernization of his enormous Army, however—and this is scheduled to occur by the end of 1955—the scale could be balanced or even tip in China's favor. It then awaits to be seen in what way the tensions which have been created on China's frontier by Soviet expansionism, will be relieved.

### Mongolia

When the Mongolian Peoples Republic was created in 1921 with the help of the Soviet Union, this marked the beginning of the Soviet appropriation of Chinese border provinces. The independence of the State was fictitious from the very beginning. When the Japanese troops approached from Manchuria, Outer Mongolia was occupied in 1936 by Soviet troops on the grounds of a defense alliance. These Soviet troops continued to remain on her borders, with strong armored formations and aviation, even after 1945. Since the Trans-Siberian Railway runs through the southern part of Outer Mongolia for a distance of 1,550 miles and the country also flanks Manchuria and Sinkiang, its inclusion in the Soviet sphere of influence is of strategic importance. Its southern boundary with China, which passes through the Gobi Desert, stands open to Soviet expansionistic efforts.

The effort to win ice-free ports on the Pacific has made Manchuria the objective of Russian expansionism for the last century. During China's era of weakness, Russia repeatedly succeeded in joining large areas of this province to her Siberian territory. Finally, Russia's push southward led to a clash with Japan, who, for her part, regarded Korea and Manchuria as her own sphere of interest. Contrary to her traditional strategy of withdrawal into the depths of her vast expanses, Russia this time misjudging the

military strength of Japan, accepted open battle. The armies of the Czar were badly beaten on the Yalu and at Mukden and his fleet sunk at Tsushima. Only the intervention of the United States rescued eastern Asia at that time for Russia and caused Japan to lose the fruits of her victory. Also, when chaos arose in Siberia immediately following the Russian Revolution which occurred at the end of World War I, the United States prevented Japan from establishing herself east of Lake Baikal. Tokyo presented her bill at Pearl Harbor.

The Japanese again attempted a camouflaged occupation of Manchuria in 1931 by the establishment of the Empire of Manchuria. After their surrender, Manchuria was returned to China at the Yalta Conference. Nevertheless, the Soviet Union was conceded special rights: reoccupation of Port Arthur, use of the harbor of Dairen, and control of the railway line leading to the latter point, which practically meant military control of the province. Since that time, Mao has reached an agreement with Moscow on the railway, but it is to be presumed that the effort of the Soviet Union to widen the sphere of her political and economic influence in Manchuria, which is bound on three sides by Siberia, will, in the future, operate detrimentally to Moscow's relations with a strengthened China.

### Sinkiang

The Soviet Union has always made more use of economic pressure and political intrigue than of armed force in central Asia for extending her sphere of influence. Trade caravans, as a rule, have proved far more useful than regiments of Cossacks. In this way Turkestan was drawn into the Russian sphere of influence 80 years ago, and since that time many "frontier adjustments" have followed. Today, the Soviet Union borders the Chinese Province of Sinkiang for a distance of nearly



1,000 miles. This sparsely populated region, which is half the size of western Europe, is of strategic importance to the Soviet Union not only because of its mineral wealth—coal, oil, and tin—but also because of its location, for in Soviet hands it would constitute a wedge driven into the central Asiatic area. Through the medium of trade agreements with Peking, the Soviet Union has ensured for herself a share in the exploitation of Sinkiang Province. Her political influence is based on the composition of the population which is only 8 percent Chinese. The remainder is of the same racial origin as the peoples of the neighboring Soviet republics. The Soviet Union has connected Sinkiang with her strategic railway network. Soviet planes are able to reach Delhi in an hour's time after taking off from Sinkiang airfields. Since the discovery of rich uranium deposits there, Sinkiang has disappeared behind the Iron Curtain as a restricted region.

The southern neighbors of Soviet Asia are Turkey, Iran, and Afghanistan. Although, in view of the defensive strength of the Armenian mountain redoubt and the military power of Turkey, the Turkish frontier would not appear to be seriously threatened, the Iranian frontiers on both sides of the Caspian Sea have little protection. To the Soviet Union, Iran represents an obstacle on the way to the open sea and a potential base for her enemy. Both in World Wars I and II, Soviet troops occupied northern Iran and were only hesitatingly withdrawn. Operations by the Soviet Army through Iran against Iraq and in the direction of the Persian Gulf, are quite conceivable in the event of a general war. The development of the Soviet railway network in the vicinity of the frontier confirms this possibility—whence the importance of the flank positions of Turkey and Pakistan.

During the period of her domination in India, England always continued her ef-

fort to bar the way to Soviet expansion by the maintenance of a friendly buffer state—Afghanistan. On the other hand, the Soviet Union took advantage of the ethnological situation in Afghanistan to expand her sphere of influence there. Since the withdrawal of the English, the defense of the Indian subcontinent has fallen to the lot of Pakistan. A great deal depends on whether Afghanistan, the "glacis of India," succeeds in maintaining her neutral policy of "good neighborly relationship" with the Soviet Union. The partially indefinite course of the frontier line over the mountain crests of the Pamir Plateau and the Hindu Kush range, could at any time serve as a pretext for an attack. Threats of this type have repeatedly been spoken of recently in connection with the Turko-Pakistan military pact. According to reports, the Soviet Union has three or four armies at her disposal within the area assigned to the "Asiatic Interior"—Tashkent—Army Group. Afghanistan, however, whose wild, mountainous character renders the employment of motorized forces difficult and whose narrow passes are easily blocked, possesses great natural defensive strength.

### Strategic Position

The strategic position of the Soviet Union in Asia is dependent on the strength of her political position. As long as Communist China stands with her, the Soviet Union is well-nigh invincible in Asia, militarily. The combined military potential of these two great powers is almost unlimited in point of men and raw materials. The Soviet armament industry on both sides of the Urals is adequate for the demands of a long war, and the Asiatic way of life is better suited for modern war than the Western. The operational basis for a land war in Asia does not exist in the cities of this area, but in an element which is immune to the influence of an adversary—the enormous territorial expanse, which offers the defender unlim-



ited freedom of maneuver with all the advantages of the interior lines and renders illusory any blitzkrieg methods on the part of the attacker. It is entirely obvious that Soviet Asia could not be "conquered" by the destruction of individual cities or industrial regions or railways.

It will be admitted, after a realistic estimate of air force possibilities, that a final decision could not be won in Asia, even with the latest means of aerial warfare. It is also to be presumed that even in her Asiatic territories, the Soviet Union possesses considerable capacity for defense on the ground as well as in the air—even when it is assumed that her defense might be split up by a chain of encircling global bases.

It would be erroneous to believe that any Western military forces could ever again be employed on Asiatic soil with any prospect of success. A war conducted there, as experience has shown, would be as hopeless as attempting to fill a bottomless cask.

A serious, possibly a deadly, threat to the Soviet Union, could come from a clash between Soviet imperialism and Chinese nationalism. No such development is presently discernible. It is, nevertheless, conceivable, that the expansion of the Soviet power in the Far East has reached its

zenith and that, as a result in the not too distant future, there will be a shift of the Soviet point of main effort to central Asia, with greater pressure on Iran, Pakistan, and India.

### Conclusion

Such, in brief, is the military and political situation in Soviet Asia. It is characterized by aggressiveness in the matter of territorial expansion and widening of political and ideological spheres of influence, based on the present possession of adequate means for the exercise of power, and still greater ambition.

The peoples of Asia have made it clearly apparent that they are not willing to be under the colonial domination of the West, but at the same time, they have not at all decided in favor of submission to the imperialism of Moscow. This is particularly true in the case of China, whose final attitude can by no means be divined.

Asia's problems are not exclusively of a military nature. They are predominately of a social and economic nature. It will, therefore, be less contingent on military might whether or not the slogan mentioned at the beginning of this article, "Asia for the Asians," becomes the battlecry, "Asia for the Communists," and thus a threat to world peace.

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[The people of Asia] want independence. They want economic progress. They want peace. They want freedom of choice as to their culture, religion, and their equal dignity as human beings. And communism in practice . . . will eventually fail because it runs counter to human nature. Communism in practice goes against all the fundamental desires of the peoples of Asia.

*Vice President Richard M. Nixon*

## The Rail Transport Situation in the Caucasus 1942-43

Translated and digested by Lieutenant Colonel Wallace C. Magathan, Jr., Instructor,  
Command and General Staff College, from an article by Lieutenant Colonel  
Eberhard von Pfister, in "Wehrkunde," (West Germany) August 1954.

FROM Moltke's period until World War II, the railroad was the most important means for accomplishing sizable military transport movements. It was the most efficient large-scale transport means—indispensable for the movement of troops as well as supplies. At the present time, the complete motorization of all units and the improved possibilities for air transport plus the sensitivity of railway installations to air attack seem to lessen the previous military significance of the railroad. This is surely the case in theaters of war in which the economic and transport structure corresponds to that of western European states. In areas, however, which are similar in structure to eastern Europe, the railroad will retain its great economic and military importance. In the Soviet Union, for example, 85 percent of the entire freight burden still falls on the railway system. At the very least, the supply of troops in such areas can scarcely be ensured without drawing on the railroads because of the tremendous distances, scarcity of all-weather highways, muddy periods, and the lack of airfields. Therefore, important railroad routes will have to be taken into account in the planning and execution of any operations in such locales.

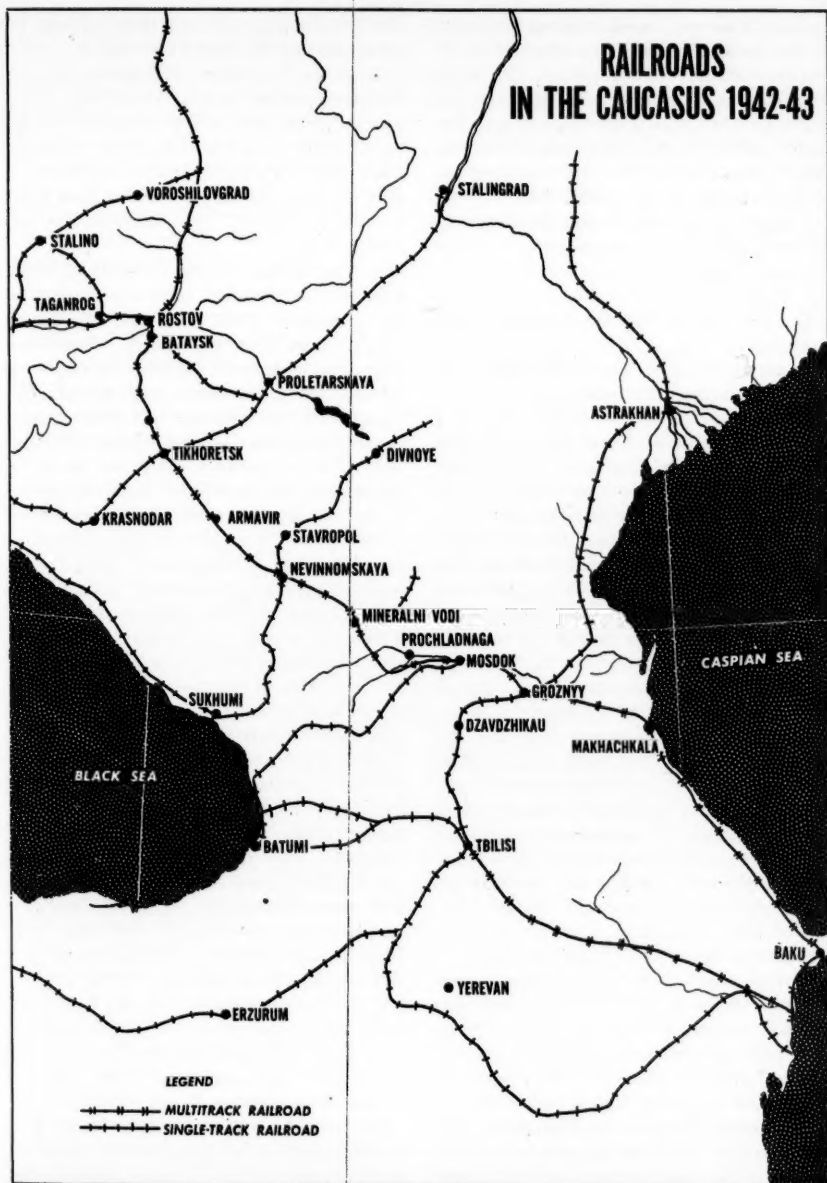
### Transportation Problems

A few problems which arose in connection with the operations of the First Armored Army in the Caucasus area in 1942-43 may be of interest. This campaign is particularly interesting because the First Armored Army in the course of 4 to 5 weeks had to surmount distances aggregating 600 miles in the advance as well as retreat. Since the Rostov—Armavir—Pro-

chladnaga—Mosdok Railroad had been destroyed and was not available during the advance in the summer of 1942, supply difficulties arose at the decisive moment of the operation, especially of gasoline, which contributed to the failure to reach the important rail line to Stalingrad which followed the shore of the Caspian Sea. The Staff of the First Armored Army had already anticipated such a contingency prior to the outset of this far-reaching operation and made repeated requests for the assignment of a railway engineer company with specialists in railway operation and construction as a minimum. It was to be the mission of this company to make swift emergency repairs of the less severely damaged sections of the railway line, even without joining the severed sections and to provide a shuttle service to relieve the supply columns. Since the available railway engineer companies were already earmarked for the reconstruction of the lines leading to Stalingrad, no railway engineer units were placed at the disposal of the First Armored Army. In spite of this, the Army Transportation Officer with the help of a few specialists culled from the ranks and indigenous railroaders, succeeded in restoring to use a few lightly damaged sections of the rail line. As a result it was possible, for example, to shuttle a Romanian Infantry Division with a makeshift train from Nevinnomskaya almost to Mineralni Vodi, thereby avoiding a 2-day march through dry steppe. In addition, a daily water train was dispatched to Difnoye, alleviating the water shortage during the fighting on the Calmuck Steppe.

Especially difficult transportation problems were presented during the with-

# RAILROADS IN THE CAUCASUS 1942-43



drawal; however, requirements exceeded by far the maximum daily capacity of six trains past any given point. Deviating from the customary procedure, the decision on what was to be shipped was primarily left up to the Army Transportation Officer. In consequence, the following urgent categories were established:

1. Improvised freight cars fitted out for the evacuation of the wounded.
2. Munitions.
3. Food.
4. About 2,000 emigrant Germans (*Volksdeutsch*).
5. About 3,000 political refugees.
6. Air Force installations.
7. Damaged armored vehicles.

The evacuation of Army dumps received priority over the displacement requirements of the corps. Only on occasion could one or two trains be made available for this tactical displacement. Indiscriminate loading was not permitted and officers were relieved if the priorities were not followed.

Because of the scarcity of locomotives, a backlog of about 40 trains rapidly accumulated—particularly in the depot at Mineralni Vodi. When the enemy discovered this situation, he systematically attacked railway installations from the air. Consequently, the First Panzer Army withdrew antiaircraft elements and its own fighter squadron from the front to protect these installations. In addition, a group of enemy armor drove through to the railway depot at Mineralni Vodi, which at that time was about 15 miles in rear of the main line of resistance, took it under fire and caused a panic. The field railway troops at that installation were not trained to meet that type of crisis. Thus, it is evident that railway operating units in proximity to the front must prepare defensive positions ahead of time in order to permit firm control of rail movements even under fire.

Evacuation of the railroad yards by moving trains at intervals proved unsuccessful when one of the trains in the snake-

like procession was hit, thus halting the movement of the following trains.

In spite of these difficulties, it was largely possible to clear the Army dumps and to guide the loaded trains out of the Army area to the rear. Unfortunately, not very many of these trains succeeded in getting over the single-tracked Don River Bridge at Rostov. The reasons for this were:

1. The Kuban River bridgehead which had been established meanwhile, required the provision of 48 Class III, 20 Class I, and 5 Class V supply trains. This transport was necessarily moving in the opposite direction. Consequently, freight stations were not emptier but fuller. As a result, the Army directed, where necessary, that the tracks be cleared by derailling halted evacuation trains. Many trains enroute to Rostov were detoured toward Krasnodar.

2. The enemy stepped up his activities against lightly protected rail installations. For example, a large number of the available locomotives were blocked out of action when saboteurs dropped a locomotive into the turntable pit at the important Kavkazskaya rail yards. In addition, enemy fliers succeeded in hitting an ammunition train in the station at Malorossiskaya on 1 January 1943. Reconstruction of this severely damaged installation was hampered because railway engineer units had already displaced with the bulk of the troops toward Rostov and had left behind only a few demolition units. This incident once again demonstrated the need for sidetracking ammunition trains, if at all possible, away from railroad yards.

3. On 1 February 1943, 60 trains remaining in the yards at Bataisk-on-the-Don were lost when the Don River Bridge at Rostov was destroyed from the air. Moreover, a number of army group supply installations could no longer be cleared. Some 25,000 tons of provisions remained in Tichorezk alone. Losses would prob-

ably have been less if sufficient anti-aircraft and fighter units had been employed to protect rail installations. It was again demonstrated that the blocking of a rail net behind a particular sector of the battleline is most effective if only the rail yards near the front are destroyed. This results in large concentrations of rolling stock being accumulated in the large rail centers farther to the rear which prove profitable targets for future air raids.

Demolition of the railway installations followed immediately after evacuation. It was carried out, according to a schedule prepared by the Army Transportation Officer, by railway engineers who ensured a close working relationship with the responsible corps through liaison officers. The objective was to keep the trains operating as long as possible but to execute the demolition so as to prevent utilization of the track by the enemy for the maximum time. Incidents such as the destruction of a water tower that was needed later to supply water to the last train to leave the area should not be permitted to occur. Effective destruction of rail lines can only be achieved when not just the bridges but all locomotive service installations are systematically destroyed. In open stretches, it is insufficient merely to destroy individual rails. It is more important to destroy the railroad ties. For this purpose, a "tie plow" or "tie smasher" may be used to break the individual ties.

Even the portion of the rail line to be destroyed must be protected until the last transport has passed. It is obviously scarcely possible to completely protect a section of track against sabotage and damage by partisans. However, bridges and locomotive service facilities, such as water stops or roundhouses with turntables, require special protection in any event.

Every effort must be made to ensure a friendly attitude by people dwelling along the right of way, especially the indigenous rail employees, so that reliable informants

may be recruited among them. It is their task to procure timely information of planned attacks against the railroad and facilitate rapid action against partisan outbreaks. In winter, the assistance of the local populace is also necessary in protecting the rails from drifting snow. Rail installations should be considered for accommodating rear echelon elements to help supervise this type of activity.

Throughout the withdrawal from the Caucasus, the First Panzer Army co-ordinated operational with supply and transport requirements in model fashion. The Army command operated on the principle that more than ever in a modern army the best operational and tactical plans remain only theory if not backed up with essential supplies.

### Conclusion

Experience in the field of transport indicated then that in a large-scale war of movement, as in the Caucasus, the transportation officer of an army must have the influential position intended for him. The Army Transportation Office was the sole tactical transportation headquarters which could effect the proper synthesis between military requirements and movement capabilities. The Army Transportation Officer should not be merely a liaison officer co-ordinating transport matters with local transportation offices far in the rear. It would have been more to the point to install the Army Transportation Officer as "Commander of Transport Organization" in the Army area under whom were placed all transportation-railway engineer and operating units in the Army zone. This solution follows logical transport organization at army group level and corresponds to the practice adopted by the Soviet Army in the Eastern Theater of War.

Operations in the Caucasus proved further that in an Eastern Theater of War special railway engineer and military operating units, as well, are necessary. In

wide-ranging operations, large armored formations require an appropriate, fully motorized railway engineer unit manned with specialists in construction as well as operations, which can ensure makeshift and rapid utilization of lightly damaged portions of the rail net. The prosecution

of rail operations in the vicinity of the front requires a *military* railway operating unit in any event. Service in rail stations threatened by air, armored, or partisan attack demands not only technical ability but also a readiness for battle and soldierly discipline.

## Normandy, 1944

Translated and digested by the MILITARY REVIEW from an article by former Rear Admiral Kurt Assmann in "Deutsche Soldaten Zeitung" (Germany) 1 July 1954.

ON THE afternoon of 5 June 1944, there gathered off the southern coast of England—under the orders of General Dwight D. Eisenhower—a large fleet consisting of no less than 6,483 war and transport vessels—including 6 battleships, 23 cruisers, and 104 destroyers—destined for the execution of the greatest landing operation ever known in the history of the world.

The issuing of this order had been preceded by tense scenes in the headquarters of the General. The determination of the time for the landing had been based on certain nautical and military considerations. First, the depth of the water with reference to ebb and flood tides had to be taken into account. The landing vessels had to be beached with a rising tide so as to be quickly waterborne again. At low tide—hence as flood tide was just beginning to set in—it was easiest to avoid the obstacles planted by the enemy offshore, but the distance which the troops had to cover under the fire of the enemy after disembarking, was greater. It was decided that the landing would be made 3 hours after low tide. The Army wished to land in the gray light of early dawn; the naval forces and aviation, however, desired sufficient daylight and time for the attack on the coastal fortifications

which had to precede the landing. It was agreed, therefore, to set the landing time at 40 minutes after dawn. Since the landing had to be effected at daybreak, the crossing of the Channel and approach to the coast had to take place at night. For this, a certain amount of light was necessary—say that of about half moon, since the enormous number of vessels involved, could not be handled in total darkness.

It was now calculated, in advance, when these various conditions would coincide. This occurred only once every 4 weeks and for a period of only 3 days. In the month of June, the 5th was the first day of the period favorable for the landing. It is interesting to note that when the German Naval Command planned the invasion of England, Operation *Seelöwe*, in the summer of 1940, it came to the same conclusions relative to the basic prerequisites for the landing as the Allied Supreme Command in 1944. The Germans should have perceived that the days from 5 to 7 June constituted an especially dangerous period.

The thing that could not be calculated with entire accuracy beforehand, however, and which, nevertheless, was of decisive importance in the execution of the operation, was the condition of the weather. This was, at the beginning of June, any-



thing but favorable. If they were to execute the landing on 5 June, the landing fleet would have to put to sea on the afternoon of the 4th. On the evening of the 3d, General Eisenhower called his chief commanders together and, in addition, the three most experienced weather experts of England and the United States. Their faces were troubled. A series of depressions was approaching the Channel: winds, clouds, and heavy seas could be expected. The Navy and Air Force declared it impossible to make the crossing. "We will meet again at 0430 tomorrow," commanded Eisenhower. The next morning, the picture was the same. "We will postpone it for 24 hours," was Eisenhower's decision. On the evening of the 4th, the weather experts were somewhat more hopeful. Contrary to expectations, the weather conditions had not grown any worse. The Navy and Air Force voiced certain apprehensions but, nevertheless, there was a chance. If they were lucky, things might go all right. Eisenhower arose: "That is a decision which I alone must make; after all, that is what I am here for." And then, after a short pause: "We will start tomorrow."

Thus, the historical decision which was destined to shake Europe to its foundations was made. General Eisenhower did not suspect, at that time, how much the unfavorableness of the weather was to contribute toward rendering the Allied project successful.

#### Departure of Fleet

The advance of the landing fleet over the Channel took place in five great columns on the night of 5-6 June. The weather was worse and the sea heavier than expected. The crossing proceeded, however, in almost a peacetime manner. The formations neither ran onto mine obstacles, which could easily have brought them to a halt, nor were enemy naval or aviation outposts, which would have been able to report the approach of the fleet,

sighted. Not until the invasion fleet was drawing near the enemy coast and dawn began to break, was it attacked—by light German naval units. These were driven off by the covering forces, although an Allied cruiser was lost. Before the reports of the German vessels could bring a reaction, the entire weight of the Allied fighting power fell unimpeded and by surprise on the German coastal defense.

#### German Reconnaissance

The Germans had long expected the Allied landings but in spite of this an enemy transport fleet of over 6,000 ships left their ports in broad daylight and assembled on the sea only 60 nautical miles from the French coastline. This force was able to approach to within a few nautical miles of the coast without anyone noting it and without anything happening during the passage. This fact appears so monstrously strange in this age of aviation, fast sea vessels, and highly developed technical intelligence and means of attack that it demands an explanation.

Naval Commando Group "West" and the Third Air Force—both of them in Paris—were responsible for reconnaissance over the seas. They were also charged with engaging the enemy in his advance across the Channel. The German Command, through its intelligence service, possessed an exact knowledge of the strength of the enemy army units concentrated in the south of England. In addition to this, the Luftwaffe, in spite of enemy air supremacy, had been able to obtain by air reconnaissance reliable data including photographic material relative to the vessels in the ports of southern England. These reconnaissance flights had taken place up to 24 May. Since the ship tonnage was far from adequate for the transportation of the concentration of forces across the Channel, the Naval Command had concluded that the enemy was not yet through with his nautical preparations and as late

as 4 June had reported to the Luftwaffe Special Command (SKL) that "... at the present moment, no immediate major invasion is to be expected."

Also, because of the very unfavorable weather conditions for a landing, Naval Group "West" on 5 June, saw no acute danger of a landing. The regular naval outpost positions were 25 to 30 nautical miles off the coast, while motor torpedo boats were supposed to push out to the sea area off the English ports. Because of the considerable risk for the outpost boats as a result of the activity of British aviation, the outpost positions were occupied only in the darkness of night and on moonlit nights, and then only when the sky was overcast. Only during periods of acute danger of a landing was greater risk to be taken. The night of 5-6 June fell in the moonlight period, hence, on the basis of the calculations for Operation *Seelöwe* which had been planned in 1940, in the danger period. Notwithstanding this, the naval forces were not sent out since, in the opinion of Group "West," the danger of a landing was not acute.

Neither was the air over the Channel reconnoitered during the night of 5-6 June. The German Third Air Force had been considerably reinforced during the first quarter of 1944 for attacks on ports and industrial establishments in southern England. Also, since the end of April, the Allied invasion preparations had been a target of the German air activity in the Western Theater. There had, however, been no systematic reconnaissance of the Channel area. Moreover, since 25 May, because of the weather situation and the enemy air superiority, reconnaissance of the enemy ports had not been possible.

The enemy air superiority would also have been able to prevent reconnaissance by day over the Channel.

It was also a serious blow to the German reconnaissance that the adversary—

by means of systematic bombing attacks before the beginning of the invasion—had almost completely destroyed the very carefully constructed network of radar stations on the French coast—which would have been able to detect the approach of the enemy fleet in time—and the signal communication system belonging to it.

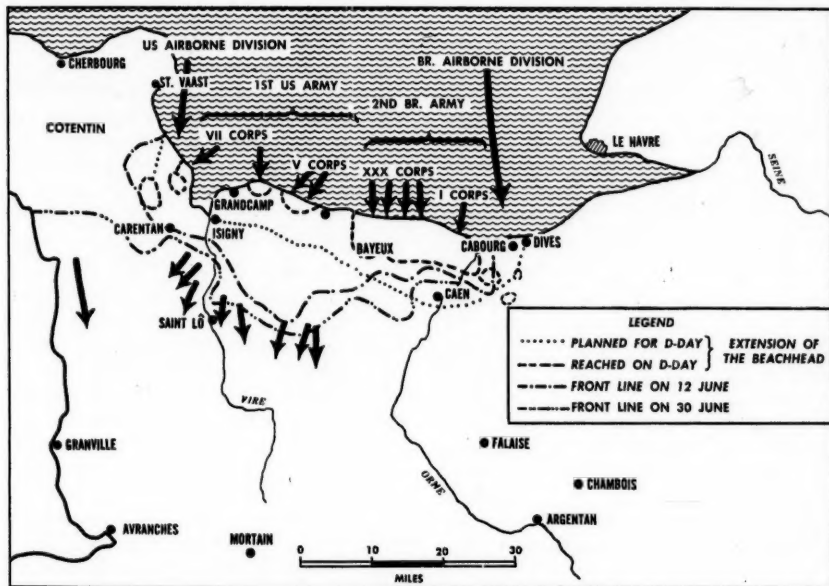
### First Alert

The ocean area assigned for outpost positions for the German naval forces was traversed by the points of the allied ship formations 10 hours prior to H-hour. It is impossible to imagine what the consequences would have been for the impending battle for the coast if, by means of outpost units, aircraft, or radar installations, the approach of the allied landing fleet had been reported 10 hours prior to the landing. Any such reports would, the more easily, have given a clear picture of the impending danger since, during the course of the night, other signs of the approaching danger had been noted which, of themselves, however, were not considered to be of sufficient importance. At 2100 on 5 June, the enemy radio had given instructions to the terror groups in France. From 2200 on, the German radio listening service had heard weather reports being given to the heavy American combat formations, a thing that had never before been noted at these hours. Beginning with 2235, the concentration of the heavy combat formations of the United States Air Force in the area north of London was picked up. Shortly before midnight, an announcement by the London radio was heard, according to which the beginning of the invasion could be expected within 48 hours after 2400 of 6 June.

Although, according to the judgment of the Commander in Chief of the Western Theater, Field Marshal von Rundstedt, the invasion was not especially likely at that moment, the intercepted traffic of the enemy radio service led to an order for the

second stage alert for all coastal sectors in the area of the Fifteenth Army. In Normandy, the Seventh Army was not given the alert command until 0130. At 0300 of 6 June, powerful parachute units were dropped in the area on both sides of the mouth of the Orne. Next, followed air landings in the Isigny-Carentan area west of the mouth of the Vire. When the reports of these landings reached the Commander in Chief of the Western The-

Not until early afternoon of 6 June, was the 12th SS Armored Division released for engagement. Since, by this time, the enemy air superiority was being fully manifested, it was not possible to set out in full strength until it became dark. Thus, an entire day, the decisive first 24 hours, was lost. At 0309, a concentration of enemy vessels was picked up by a German radar installation at Port en Bessin. Ten major vessels were



ater at 0215, they awakened the definite impression that a landing was about to occur. When, thereupon, at 0230, the Commander in Chief of the Western Theater gave the order to dispatch the 12th SS Armored Division, which had been stationed south of the lower course of the Seine, forward in the direction of Lisieux and to prepare the Armored Training Division, which was northwest of Orleans, for marching, the Oberkommando der Wehrmacht (OKW) intervened and commanded both armored divisions to remain where they were.

distinguished which "have come to a halt 7 nautical miles from the coast, thus indicating preparations for a landing." Naval Group "West," thereupon, commanded its naval forces to move out to meet the enemy. The reports which were sent back from these naval forces intensified the impression of the Commander in Chief of the Western Theater that a major landing was about to occur, but his request that the OKW release the Armored Divisions for employment was fruitless.

Any effective combat of the invasion

fleet by German air or naval forces during its approach, could not be expected in the light of the relationship of the forces. The sole weapon that could have been used with any effectiveness in the Channel area was the mine. At the request of the Air Force Special Command, however, there had been no establishment of offensive barricades off the enemy coast, although a new type of bottom mine was available which, it was believed, could not be removed by minesweeping operations. The Air Force Special Command had objected to their employment off the enemy coast on the ground that they feared a compromising of the new type of fuze which, if the enemy were to copy it, could become a serious threat to the German waters. A start had been made in 1942 with the laying of a defensive barricade off their own coast, but the mines laid at that time could hardly be regarded as still effective. These barricades had been extended but the work had proceeded very slowly, partly because of enemy interference, partly because of lack of mines and minesweepers, and partly because of tactical reasons. The Air Force Special Command did not wish to hinder movements of the German marine traffic by the laying of new barricades, but wished to drop a systematically planned barricade only when it became clearly evident that an enemy landing was about to take place.

### Coastal Battle

When, on 6 June 1944 in the gray light of dawn, the first of the fighting broke out for the French Normandy coast, it hit at an especially soft spot of the German defense front. Opinion on the German side as to when the Allied blow would be struck, had become divided. The enemy intelligence service had deluged the German military command with reports which pointed everywhere.

The Air Force Special Command was of the opinion that the landing would be made on a clear coast with favorable beach

conditions, which was not exposed to the westerly winds, and which was in the vicinity of an efficient port. Consequently, they looked upon the Seine Bay, which is sheltered on the west by the Cotentin Peninsula, and its western portion is close to Le Havre, as the particularly ideal landing place for the enemy. The OKW and the Western Commander in Chief were of the opinion that the landing would be made on the eastern portion of the Channel where the sea and land route in the direction of the Rhine was the shortest and where, in addition, the German long-range combat installations with new type weapons for employment against England were in readiness for action. Nevertheless, the fact that the adversary was aware that this portion of the coast was the most strongly fortified and also that the markedly steep coast would render landing difficult, spoke against a landing here. Hitler at first regarded Brittany as the most endangered location, but by the end of March, he too was inclined to consider Normandy as an especially likely place, but it was not until 2 May that he ordered the air and tank defense there to be strengthened.

### Aimless Defense

These differences of view hindered the timely formation of a point of main effort, both in regard to stationary defense installations and to troop dispositions. The first consisted, principally, of the coastal fortifications and the forefield obstacles planted just off shore. The famed *Atlantikwall*, because of the great extensiveness of the French coast, by no means possessed the defensive strength and invincibility against bombs and heavy artillery projectiles with which the German propaganda had vested it. In the 45-mile coastal strip between the mouths of the Orne and Vire Rivers, where the attack occurred, there were only two army batteries of six 15-cm guns each, one army battery of

four 12.2-cm guns, and one naval battery of four 15-cm guns.

As soon as he had been sent by Hitler in December 1943, "for the inspection of the coast defense," and later appointed as Commander in Chief of Army Group B, Field Marshal Rommel had turned his special attention to the further completion of the offshore obstacles, the planting of land mines back from the coast, as well as the construction of obstacles in possible landing areas. Much was done under his direction or at his suggestion for strengthening the stationary fortifications, but not all of it was prepared when the landing occurred.

Of the at least 50 million land mines which Rommel wished to plant on the northern French coast, only slightly over 4 million were planted by 20 May. The forefield mine, the *KMA* (coastal mine defense), was entirely lacking in the Seine Bay. In his last situation report before the beginning of the invasion, Rommel stated that the planned measures in the sector of the Fifteenth Army had been 68 percent carried out; in the sector of the Seventh Army, however, where the landing later occurred, only 18 percent had been completed. What had been previously neglected on the Normandy coast after that sector had moved into the foreground as the probable landing place in Hitler's estimation was never finished during the short time remaining before the invasion.

#### From the Interior?

The occupation of the coast with permanent infantry divisions, although the formation of a point of main effort is not discernible, was not equally strong everywhere. Thus, east of the Seine, in the area from Le Havre to Dunkerque, 11 divisions were gathered back of a coastal strip of about 185 miles long, while between Le Havre and Cherbourg over a stretch of about 125 miles, only

four divisions were located. In reference to the operational engagement of the mobile army forces, there existed fundamental disagreement on the part of the German commands.

Both the General Staff and the Commander in Chief of the Western Theater believed that they were not strong enough to beat the adversary at every point of the coast itself. They wished to combat him after he had landed, with reserves concentrated in the interior, and hurl him back into the sea. In contrast to this approach, Rommel, on the basis of his experiences in North Africa, was of the opinion that because of the enemy air supremacy, major troop movements would no longer be possible after a landing had been effected. The coast itself must hold, therefore; it must be the main line of defense; the decision would be won during the first 24 hours. Hitler also was of this opinion. In the face of the opposition which came from the headquarters of the Commander in Chief of the Western Theater, however, these views prevailed only in part. Out of this situation arose a compromise between defense on the coast and from the interior. Rommel's idea of bringing up the available armored divisions close behind the line formed by the infantry in order that they might be able to intervene in the repulse of the landing was accepted to only a minor degree.

Of the seven armored divisions in the area of Army Group B, only three were directly available to him. Since he considered the entire region from the Scheldt to Cherbourg to be threatened, he divided them between the mouths of the Scheldt and the Somme and the area south of Caen. The four other armored divisions were concentrated in the interior of the country as OKW reserves and could be employed only with the consent of the OKW. Of these, only the 12th SS Panzer Division was stationed in the vicinity of



the Seine Bay in the area southeast of Lisieux. In vain, during the last weeks before the invasion, Rommel had sought their transfer to the north of the Vire. They could have played a decisive role there.

The nucleus of the German defense from the interior was aided by the excellent network of railways and highways existing there which favored rapid transfers of troops. This network, however, was knocked out by the adversary with aerial bombardments prior to his landing—and most thoroughly, at that—not only behind the landing area selected by him, but in addition to the rear of the entire coastal front. This gave the German Command no clue as to where he intended to land.

It is easy to see how important it was, with the balancing on the German side between stationary coastal defense and mobile reserves, that the German Command should receive definite notification with utmost promptness of the approaching danger. That this timely alert, because of lack of reconnaissance, was never given, was doubtless of fateful consequences.

Let us take a look at the situation on the coast at the beginning of the landing:

Between the mouths of the Vire and the Orne, distributed over a coastal stretch of nearly 45 miles, stood two German divisions whose reserves, as a result of not having learned with sufficient timeliness of the landing threat, were in part far in the rear. Also along this stretch of coast were 20 guns belonging to the coast artillery, of 12.2-cm caliber and upward. The construction of the forefield obstacles had not yet been finished. What there was present of defense forces, were severely shaken by a hail of projectiles and aerial bombs of unimaginable intensity which tore up the terrain for a period of three-quarters of an hour.

In spite of surprise, it was possible to overcome the German resistance only af-

ter hard fighting in many places. This showed that gunfire and aerial bombs had not produced the utter destruction desired. In those places where the German guns had been rendered bombproof by concrete, they had remained intact and were able to inflict considerable damage on the enemy as he landed. Also, as a result of the still fairly stormy weather, the heavy seas and breakers gave the Allied troops considerable trouble. Some of the soldiers who were not accustomed to the sea suffered badly from seasickness. Many boats broke up as they landed.

The landing attack took place in five separate places. According to plan, the beachheads thus formed were to be joined on D-day. As a result of the stubborn German resistance, however, they were not joined until 12 June. After this objective had been reached, a continuous stretch of coast about 70 miles long and  $7\frac{1}{2}$  to  $9\frac{1}{2}$  miles deep was securely in Allied hands. The advance of the adversary inland was favored by the very slow arrival of the German reserves. The German commanders—among them Field Marshal Rommel—for weeks were worried for fear the enemy might land some other place in addition to the Seine Bay. They were, therefore, hesitant about robbing other places of troops for the reinforcement of the invasion point.

In addition, it now became evident as Field Marshal Rommel had predicted that the mobility of the German reserves was so reduced by the enemy air supremacy, that they were able to move but slowly—and by day only at the cost of very heavy losses. How enormously great the enemy air superiority was is evident from the fact that, when the Allied aviation attacked on 6 June with 2,100 four-motored, 600 two-motored, and almost 4,000 single-motored planes, the German Luftwaffe was able to oppose it in day and night engagements with but 319 planes. Parallel with the air superiority of the enemy



was also the ceaseless action of his heavy naval artillery which paralyzed all movement in the coastal areas.

The further course of events can be mentioned here but briefly. The principal attack of the German reserve divisions was directed against the British on the eastern sector of the Allied front. In so doing, the German forces thwarted the operational plans of the Commander in Chief of the landing army, Field Marshal Montgomery, who had intended to establish a fixed pivot with his left wing, binding down the German main forces, in order that the right American wing might wheel about, thus gaining terrain. The latter, therefore, moved rapidly forward. On 18 June, the American First Army succeeded in a breakthrough to the west coast of the Cotentin Peninsula. At the end of June, Cherbourg fell into their hands, but not until all port installations had been rendered useless. On the west wing they had not even succeeded, at this time, in gaining possession of Caen, which was especially necessary for the support of this wing and which, originally, was to have been taken on D-day. In Eisenhower's headquarters and also in the British War Cabinet, there was uneasiness. Winston Churchill flew personally to Montgomery's headquarters to urge him on. Montgomery referred him to the operations plan approved by his cabinet, and was able to convince him that everything was going according to his wishes. On 10 June, Caen fell.

While the German reinforcements came on with utmost slowness and the fighting front constantly moved back, Allied troops were rapidly, and almost without disturbance, crossing the Channel. The creation of artificial ports, the so-called "mul-

berries" for the establishment of which great caissons were towed across the Channel and sunk to the bottom of the sea off the coast, was a great technical accomplishment. The German naval and air forces did everything that was in their power, but results of any consequence were impossible in the face of the relationship of the forces that existed. The difficulties the Allies experienced from the weather were more serious to them. Storms blowing in from the west during the second half of June, did considerable damage to their artificial ports.

#### Falaise Kessel

On 25 July, the great American attack on both sides of Saint Lô in the direction of Avranches, led to the collapse of the left wing of the German defense front. After the breakthrough, the American First Army was able to wheel in the direction of Paris, and the Third Army to move on for the conquest of Brittany. At the command of Hitler, in the face of strong protest by the Commander in Chief of the Western Theater, there was started at Mortain on 8 August, a strong German counterattack designed to push through to the west coast and split the Americans into two parts. The enemy did not let the favorable opportunity thus presented to him for the double envelopment of this groupment of forces escape him. By the wheeling of the United States First Army toward the northeast and north, and an advance of the British forces southward from Caen, the main body of the German forces was caught in a great pocket west of Falaise. The destruction of some 20 German divisions was the tragic end of this attempted defense against the Allied invasion forces.

## Halt! Who Goes There?

Digested by the MILITARY REVIEW from an article by Lieutenant Colonel C. P. Haynes and Lieutenant G. R. Parry in the "Canadian Army Journal" July 1954.

THERE is one fact about human nature that causes every writer no end of amazement. This fact is that the reader supposes that the events he reads about and the conclusions that are drawn must concern some other person than himself.

This article is about security—not something associated with providing for the needs of old age, but the type of security which concerns every military reader today and every day. A "textbook" subject such as this does not lend itself readily to graphic presentation; nevertheless, the authors hope that they may stimulate an interest in the practice of good security and security training.

The authors deal with military security in a broad sense and point up the need for vigilance in the safeguarding of classified information and matériel. The means of protecting such information or matériel from falling into unauthorized hands is not dissimilar to the requirements for protecting attractive supplies or ammunition against theft or illegal disposal, and this aspect of security is also extensively reviewed. The principles that ensure good security are equally applicable to the field of physical security as they are to the security of information, although the application of those principles may vary in practice.

The subversive or his friend, the fellow traveler, is not our only concern in this matter, for whether classified military information is divulged to unauthorized persons by intent, for ideological reasons, or personal gain, or whether such information is compromised by carelessness, the final result may well be the same. It follows that loyalty is not in itself a guarantee that a person is a good security risk. Loyalty is a pertinent factor

in security but when it is diluted by indiscretion, lack of integrity, social irresponsibility, and other undesirable character traits, there is no guarantee that the national security will not be prejudiced by allowing a person who has such characteristics access to classified information or employment permitting access to attractive supplies.

It is a matter of history that information *does* get to people who have no "need-to-know" and that government property has a peculiar fascination for the untrustworthy soldier or civilian. Breaches of security in either manner diminish Canada's ability to protect her way of life.

### The Fifth Column

The Spanish Civil War is the classic fifth column war. The term "fifth column" was coined by General Mola during Generalissimo Franco's advance on Madrid in 1936. Mola boasted that he had four columns of troops advancing against the capital and a fifth column of sympathizers waiting for him inside. Many of Franco's men were able to keep their positions with the Republicans throughout the entire campaign. Thus, incompetence shown in Republican high places was often deliberate.

Mussolini used bribes to corrupt many of the Negus' followers and thus prepared the way for the subjugation of the Ethiopian people. The Germans, following the same pattern in 1934, set up a fifth column organization called the "Auslands Bureau" to co-ordinate the activities of all Germans living abroad. An effort was made to coerce every German into this informer service, which was maintained by the Nazi Party and was absorbed into the Foreign Office in 1937.

In 1940, the British Expeditionary Force, while retreating in Flanders, was sniped at from supposedly friendly farm houses. Its positions were given away by agents using transmitters and carrier pigeons. The country was rife with rumors of parachuting nuns, flashing lights, and fields ploughed in such a way as to indicate military objectives to aircraft. The civilian population was stampeded and blocked the roads. Panic reigned throughout the land. Similar things occurred in Poland, Norway, Denmark, the Netherlands, and France. Both Norway and Poland were prevented from completing their mobilization by air attack directed by "Quislings" and fifth column agents. It was apparent that the Germans were fully alive to the need for security and were practicing it throughout the nation long before they began open warfare against the world. Without security they would not have achieved the tactical surprise which was the key to their initial successes.

### Sabotage

The success or failure of an enemy fifth column to infiltrate our military organization will, of course, depend upon our state of preparedness. The confident and unassuming way the British people met their challenge during the recent war points an object lesson in good security. Despite their elaborate preparations, the Germans were kept in doubt throughout the critical stages of the war, and particularly during the Battle of Britain, as to the exact state of the British defenses. Surprise is one of the cardinal principles of war. The important part which it played in the success of the Allied landings on the Normandy coast could not have been achieved without good military security throughout the British Isles.

The word sabotage is derived from the French *sabot*, meaning a wooden shoe. In the course of a minor dispute during the French Revolution, a dissatisfied work-

man took off his *sabot* and threw it into a machine, thereby causing damage and stoppage of work—thus sabotage.

During World War II, there were, in Canada, only a few proved cases of sabotage. These were generally caused by disgruntled or unstable workmen rather than agents of a foreign power. It must be remembered, however, that during the recent war the Communists and their fellow travelers were working in the interests of the common war effort against fascism. Should we, in a future war, be combating communism it may well be a different matter. It is the boast of communism that every nation which has embraced its doctrine has collapsed from within. It was widespread internal sabotage and espionage that resulted in the downfall of the popular elective government in each of the countries which have embraced communism since the end of World War II. Since it is basic Communist theory that such methods will succeed everywhere, we must be prepared to accept the fact that preparations to undermine our governmental system by similar means are already under way. Despite recurrent "peace" offensives which may be launched by elements within our borders as well as those on the outside, we must not relax our guard. We must be prepared to deal with the would-be saboteur.

### What Can You Do?

The most important link in the chain of security is the individual. It is his duty to read and observe security regulations. Commanders, unit security officers, staff officers, regimental officers, and all those in positions of responsibility should, by their example, set a high standard of security within the Military Establishment, as this will help to provide a pattern of individual security discipline. Officers, warrant officers, and noncommissioned officers must be unrelenting in the practice of security and the conduct of

security training. The individual must not be left in doubt as to his responsibility. He must be shown that it is his duty to prevent loss of life and property and to guard against sabotage and espionage. *These are standing orders.* Let us examine some of the hazards to security.

The persons who constitute potential threats to security, in its broadest sense, are, first, those persons who get on premises without authorization; second, those who are admitted on the basis of inadequate selection information, or those who are properly admitted but later become subversive, disaffected, or yield to the temptation for profiteering and illegitimate private gain. The third group are those who often unwittingly commit breaches of security by careless talk or acts. A man who talks needlessly about his work or what he knows, or one who fails through carelessness or drunkenness to provide for the safety of any weapon, vehicle, or building, is a poor security risk. He is a hazard equally to himself and to his acquaintances.

Therefore, in order to prevent harm, men selected for security duties or for establishments containing classified matter must be of good character and must be adequately trained to carry out their responsibilities. The man is the key to good security, for all security devices have their breakdown point which only an alert individual can cover. Emphasis should be placed on the selection and training of guards for perimeter and internal security duties. Only by maintaining an alert and efficient security guard and a high standard of security training can unit personnel be made aware of the need for security. Since a high standard of security is in a sense restrictive, it will only be obtained by continuous observation and spot-checking by all officers, warrant officers, and noncommissioned officers and, of course, by specially appointed security officers. A good security

program built on the principle that security is an individual responsibility and not merely a job for the specialists, will achieve much in stopping leaks of information and loss of public property. To paraphrase a cliché, the security screen is only as strong as its weakest strand.

### The Perimeter

Now let us examine some specific aspects of security, starting with perimeter security.

Protection of the perimeter is the first consideration in the external security of military installations. Certain ground features such as mountains, rivers, and forests are natural aids to security and serve to restrict the approaches of personnel entering or leaving an installation or to screen the installation from unauthorized observation. The selection of natural aids should, wherever possible, form an integral part of every physical security plan, as this may often assist in economies in guard personnel and mechanical devices to secure an installation.

Among the mechanical aids to perimeter security are devices such as fences, gates, electrical circuits, alarms, or lights which restrict, control, hinder, discourage, or frighten persons attempting illegal entry or exit. It is a popular feeling among many people that a good wire mesh or chain link fence around a camp provides the best means of securing the perimeter, and it is true that a good fence is a deterrent to thieves. Security surveys, however, have established that the average fence in itself may often serve as little more than a line of demarcation. Determined intruders can go over or under most fences even with guards patrolling the area—which, incidentally, should be done on a sporadic timing basis, at least four times each hour. In its simplest state, a fence merely serves to deter wandering humans or cattle from entering danger areas. It may also prevent hunters, tramps, picnickers, or children from

starting fires on government property and from causing themselves and others bodily harm.

Lights are of assistance to both the intruders and the guards but, in the event of war, it may be necessary to impose blackout restrictions. Quite apart from these considerations, the excessive cost of providing fences, guards, and protective lighting around all our defense establishments and training camps would be prohibitive.

It is therefore, apparent that no general rule can be of universal application and a security plan must be worked out for each installation to meet local requirements. At a large camp it might be adequate if the training areas are protected from unauthorized entry by wheeled vehicles. Trees, marshes, ditches, or simple barbed wire fencing might serve as an effective barrier around such areas. In all cases it is most desirable to maintain prominent, freshly painted signs along the boundaries to warn trespassers against unauthorized entry and the danger from artillery, infantry, or other weapons.

Depending upon the cost or manpower requirements in each case, it may be found feasible to secure completely only vital operational installations against unauthorized entry. Such installations usually include areas where explosives, classified matter, and valuable public supplies are kept. In many instances this may require the centralization of supply and administrative areas or the relocation of equipment and accommodations. Such concentration in most cases results in better control and permits greater protection at less cost. There should be gates and guards at all authorized public entrances to defense establishments. Such gates should be designed to form an effective barrier against unauthorized access and they should be limited to an absolute minimum. The guards at all entrances should

be able to maintain a permanent record of all traffic and, in addition, should be trained to check thoroughly the passes and credentials of personnel and vehicles going in and going out. More will be said about this all-important aspect of security control later in this article. This arrangement may not now be practicable at installations where campsites and townships having family type quarters are served by the same entrance; however, spot checks of traffic can be made and will be found an effective deterrent to unauthorized movement of matériel.

### The Guard

Security guards for duty at barriers should be specially selected and trained and must be in sufficient numbers and properly equipped to do their job. Provision must be made for peak load periods if security measures are not going to impede training and general administration and supply. A guard should be alert, tactful, courteous, and thorough. It is obviously essential that a guard *look* like a guard. His uniform should always be clean and neatly pressed, his shoes polished, and his weapon or other equipment must look ready for instant use. By his bearing and manner he must command respect. The guard's attitude is important not only from the security viewpoint, but his manner and appearance reflect also upon discipline, morale, and public relations.

### Personnel Identification

Personnel identification and traffic control systems are established to protect defense establishments and to control the movement of personnel to, from, and within prohibited or restricted areas.

The identification of personnel and vehicles is made much easier by the registration of names and license numbers. In addition, all personnel who have been authorized to enter an area should be furnished with identification cards, or general, temporary, or daily passes, and

license tags or markers for use on vehicles. In small installations or areas, individuals may be identified by personal recognition, but in large installations, an identification card or pass should be shown to the guard at point of entry. The information on the identification cards and passes should agree with the permanent registration record. Security guards should report the loss of any identification card or pass to the guard commander who, in turn, will inform the nearest Military Police detachment.

The controls and restrictions placed on visitors increase or decrease in direct proportion to the sensitivity or vulnerability of the installation. All persons who are not assigned, detailed to duty, or permanently employed in an establishment should be considered visitors and should obtain a temporary or daily pass form authorized by the commanding officer. Casual visitors may be refused entry during peak movement hours and should not normally be allowed to carry cameras and packages into an installation, although again the role of the particular installation will influence the steps taken.

The practice of allowing civilian workmen and private contractors to bring privately owned chests of tools, instruments, and machines into defense establishments constitutes a risk to security. Boxes and similar containers brought into defense establishments without being checked provide a simple means to enemy agents to introduce explosives or other harmful agents.

The control of the use, routing, and parking of vehicles in and around defense establishments constitutes one of the most difficult problems of transportation officers, security guards, and traffic control police. In addition to the financial loss which may result to the Department of National Defence from a driver's use of a public vehicle while he is on a "detour" or a frolic of his own, he may often be

tempted to pick up hitch-hikers, unwittingly pass military information to strangers, or carry unauthorized persons into restricted areas. Private or public vehicles of commuters also offer means of illegally carrying military documents, attractive supplies, or explosives in or out of defense establishments. The careful checking of all vehicles and their authorization will reduce these hazards to security to a minimum.

Registration of vehicles should be conducted in much the same manner as the registration of vehicles by civilian authorities, and the data to be recorded should include the make, model, color, civilian license number, body and motor number, and the owner's name and address. Since more time is required to examine loaded trucks than passenger cars, tractors, or light vehicles, wherever possible separate gates should be provided for such vehicles.

Persons employed in supply divisions, workshops, or repair depots, or visitors to these establishments should not be permitted to park their automobiles within the enclosures of such establishments. The ideal parking areas are those located away from important areas and separately fenced in such a manner that occupants of automobiles must pass through a pedestrian gate before entering the building or establishments. The entry and movement of taxicabs in military camps also requires careful control. Taxis should be restricted to certain roads and centrally located taxi stands near barracks or family type quarters areas. They should not be permitted to cruise at will throughout army camps. Wherever possible, consideration should be given to segregating residential townsites from the main camp areas and providing separate entrances for private and military traffic. It would also, undoubtedly, deter motorists from carrying unauthorized passengers, articles, or documents in and out of army camps if prominent signs were erected



at the gates to the effect that all vehicles are subject to a thorough inspection by the guard. Periodic spot-checking of vehicles, including the engine, seating, and luggage compartments, has proved an effective deterrent to wrongdoers.

Civilian workmen and private contractors and their suppliers traveling in and out of camp areas often require careful scrutiny. It is the duty of the camp commander in each case to impose a suitable pass system in accordance with Defence Establishment Trespass Regulations and Canadian Army Orders. Gate passes, work tickets, and other permits must be checked by the guard. Commanding officers and transportation officers should also supervise the entries in vehicle log books. By providing adequate controls and seeing that orders are carried out, property losses can be minimized and the possibility of sabotage or espionage averted.

### Security of Supplies

The protection of military equipment and supplies, generally, has already been discussed. Good perimeter security, control of vehicular traffic, and an effective pass system all help to prevent unauthorized access to supplies. In addition to these requirements, however, there are other specific responsibilities which devolve upon every quartermaster and commanding officer who is charged with supplies.

Suitable accommodation and a conscientious and capable supply staff are, perhaps, the most important requirements for the safekeeping of supplies.

Supply staffs and accommodations require constant supervision. Officers in charge should ensure that their substaffs are maintaining proper records of receipts, issues, loans, and shipments. Spot-checking of special bins of attractive supplies should be carried out frequently.

It is axiomatic that guards and night

watchmen selected for safeguarding supplies should be men of the highest integrity. The custody of keys requires special care. At no time should unauthorized personnel be allowed access to supplies or keys. Persons who are directly responsible for supplies will disclaim responsibility if this rule is not observed.

Finally, officers in charge of supplies should conduct inspections periodically, including tours of the supply areas after dark, in order to ensure that their orders are being carried out. Physical Security Survey Teams can do much to ensure that adequate preventive measures have been taken.

### Conclusion

There are several elements that affect the achievement of good physical security. These are: the security classification or intrinsic value of the information or matériel; the risk of fire or damage inherent in certain warlike supplies; the geography of the area; the local economic and political situation; the threat of potential enemy or subversive action and the funds or resources available for instituting appropriate protective measures. Classified information or matériel must be protected from falling into the hands of the enemy or a potential enemy, but the measures taken to prevent unauthorized disclosure or access must not impede the training or operations of our forces or result in excessive cost to the public.

In a comparatively sparsely populated country such as Canada, the cost of providing complete security protection is likely to be high and one may well ask if there is such a thing as complete security protection. Frequently, it may be necessary to take a calculated risk where it would not be financially practicable to mount a guard. An example of this might be an isolated shed at a disused small arms range which may be subject to the action of vandals or enemy sympathizers.

We can be sure that in a totalitarian state very few, if any, such risks are taken and that armed guards and security devices would be made available without regard to cost. The predominance of security police in some of these states is so great that we have become accustomed to referring to them as police states. Few people in this country would advocate that Canada should be turned into a police state or that our military installations and means of production should be bristling with armed guards and protective devices. Such measures are foreign to our democratic system. In addition, the cost to the state in manpower and resources would be enormous.

There is a need, however, periodically to check our security and to make sure that every man is made aware of his re-

sponsibilities. All should know their duty to guard against threats to security and the use of aids, instruments, or techniques of establishing and maintaining security. *This is not a job for the experts.* Those in charge should demonstrate and dramatize until security techniques are understood and appreciated throughout the service. The importance of the individual and a positive attitude toward security must always be kept in mind. The circumstances may vary: there can be no set plan to suit every security need, but the methods used need not be complicated. Good security is based on good discipline and man-management, a sound evaluation of the factors concerned and a common-sense application of the basic principles which are laid down in the security regulations.

## To Survive and Win

Digested by the MILITARY REVIEW from an article by Group Captain  
J. N. Tones in "Air Power" (Great Britain) Summer 1954.

THE expression "defense forces" arose and was in vogue between the wars. It arose out of the desire to demonstrate that we had no aggressive thoughts and that our only reason for having an Army, Navy, and Air Force was to enable us to respond to any attack that might be made upon us. The thinking behind the expression was both limited and weak, and we still suffer from the effects today. The very fact that we were ever armed at all was an admission that we considered attack to be at least a possibility. But so obsessed were we with the bad form of thinking aggressively that the word, "defend" became, and has to a frightening extent remained, synonymous with "ward off." In other words, we had no serious thought of winning a war; we merely planned for survival. And the word "at-

tack," instead of being synonymous with defense, came to be regarded as something almost unmentionable.

Thus, our thinking was limited because we prepared to ward off, but not to win when the fact of our preparing at all indicated our belief in the possibility of attack. Our thinking was weak because, although there could conceivably be some moral excuse for saying that—if we were not prepared to go so far as to offer the other cheek—we would do no more than ward off the blows. There could never be any justification, moral or military, for believing that our policy could ever meet the prime requirement of all, namely, to keep us out of war.

Wisdom is easy with hindsight, but, by 1936, the way ahead should have been clear. It was all in *Mein Kampf*. Our entire

rearmament rush was due to Hitler; but, instead of trying to stop him, we armed to be able to ward him off when he attacked. We put the emphasis on our close defense and we continued to proclaim, with an obstinacy and sincerity that forces admiration, that we would never be aggressive. Whereas, the one thing that might have halted Hitler in his tracks would have been an uncompromising statement of our aggressive intentions under certain stated eventualities and a clear demonstration of our ability to carry them out. But no, we concentrated on our close defenses and then, having made our weakness clear, to our great moral credit we went to war.

Two world wars have given a sharper intensity and a greater urgency to policy, but they have not changed our basic creed in international affairs. Our creed, surely, is that under no circumstances will we ever start a war; we will, however, go to the extremist lengths consistent with honor to prevent one. Should we fail in this and should war nevertheless be forced upon us, our simple aim would be to win.

If this creed is accepted—and few will dispute it—we should ask ourselves whether our military policies and plans are really such as will give us what we want. Will they prevent war, and will they enable us to win if, despite everything, prevention fails?

It would not be true to say that we are in the same mental state militarily as we were in the 1930s, when the requirements of close defense were placed before all else. There is, today, a clear, and one hopes growing, appreciation of the importance of the attack; the V-bomber program is witness to this. But it is the author's belief that, although we are thinking differently than we were 20 years ago, we are still thinking just as dangerously. The danger then was that we were going in one—and the wrong—di-

rection; the danger today is that we are trying to go in too many directions.

We have three choices. We can give priority to close defense; we can give priority to defense through attack; or we can aim for both. The last of these choices is the ideal, militarily, because it provides a double insurance, but it is only ideal if we can build up and hold ready a sufficient strength in both fields; half strengths simply will not do. For obvious economic reasons this can never be achieved, and because, despite the facts, we are still attempting to achieve it, we are forced into compromise with its inevitable result that we are dangerously incapable in both spheres.

In effect, then, we have only two choices. Should we concentrate priority on close defense or on attack defense? If we choose the former, we must immediately face two major implications. The first of these is that to all intents and purposes we forgo actually winning a war insofar as winning means imposing our will on an enemy; our war aim becomes the somewhat negative and colorless one of keeping things just as they are. The second implication is that we must be able to achieve a sufficiency in skill and numbers either to deter an enemy from ever starting a fight, or to guarantee that the scale of attack received will never exceed that judged to be the maximum that the country's economics and people can absorb. Only those few who know all the facts could say whether such a guarantee could ever be given, but the course in any case stands convicted by the fact that it can never bring true victory. None will dispute that this can only come as the reward of attack, and few will deny that an enemy is more likely to be deterred from war by the certainty, and it must be a certainty, of devastating attack on his homeland rather than by the mere possibility that he may lose even a substantial part of his bomber force.

It seems, then, that an uncompromising insistence on priority for the weapons needed for the attack is the only means by which we can have a reasonable chance of satisfying our creed—to prevent if possible, to win for sure. The case for close defense priority rests mainly on the need to be able to ward off during an alleged offensive development period—sometimes called, when viewed from another angle, the survival period. The argument totters, however, if this period—whatever its purpose may be—can be shown to be nonexistent.

At this point we should study the commodity—time. We are told that one of the main lessons of World War II was the fact that it takes a very long time to build up a real bomber offensive capability. (The reference is normally to a bomber offensive, but the argument applies equally to other offensive arms.) Time, we are told, is needed to produce, train, and build. All this is, of course—as a statement of last-war fact—true. What is much less certain and not necessarily true is whether the correct lesson is being drawn from these facts, or indeed whether they constitute a lesson at all. In reality, it is suggested, the lesson derives from only the last few days of the war, for Hiroshima erased in a few seconds most of the validity from conclusions drawn from the previous 5 years. And the lesson, surely, is not that many years of time will be needed, but simply that there will be no time. Fighting of various kinds may drag on for a long period, but it will merely be to confirm an issue already determined.

No expert knowledge is needed to enable one to look at a map and appreciate how few and compact are the vitals of this country, and one has only to impose on these the destructive power already demonstrated in 1945—child's play, we are told, compared with what can be done today—to see that the survival period

must be measured in hours or, at most, days. If we give priority to our close defenses, it will assuredly mean that our attack forces will at best be at half capability, able neither to prevent nor win. Under such conditions an offensive development period will indeed be required; it will be required, but it will not be granted us because, however much priority the close defenses receive, it is difficult to believe—and this is the kernel of the argument—that they will be able to give us, in terms of either immunity or time, such a breathing space as would be needed by only partially developed attack forces. Even if a comparatively long breathing space could be gained, a highly doubtful hypothesis, there would, on the most optimistic basis, be no physical capacity left beyond that needed to ensure the continuance of the close defense.

It has rightly been said that a military establishment which is expected to fight on after a nation has undergone atomic attack must do so with the men and equipment already mobilized. If sound plans are made now, however, it should not be impossible to site, disperse, and organize at least the bomber element of our attack forces so that it is geographically removed from—and for a period in all respects independent of—the urban centers against which the enemy atomic offensive is likely to be launched. It was Andrei Vishinski who so truly pointed out that the lesson of the atom bomb is that in the future the man who has received a mortal blow can still retain the ability to kill. If, then, as seems probable whatever we do, the rest of the country is going to be very nearly knocked out, we should surely be better off partially knocked out but still capable of dealing a mortal blow, rather than a little less knocked out but capable only of hanging on for a while longer. Despite this, the national attitude seems to remain one of either blind hope that it will not really be so bad on the

day, or alternatively one of simple nostalgia for the well-understood warfare of the past.

The author suggested earlier that, through our efforts to satisfy too many needs, we were in danger of being too weak everywhere. An even greater danger it seems is that of being both weak and late. Most allied forces—air, land, and sea—are based on the principle of an expanding nucleus; that is, one has a fairly small and basic peacetime force upon which one builds a theoretically rapid expansion in war. Somewhat allied to this is the respectable and long accepted view that the shop window is dangerous, that frontline strength is all very fine, but that backing is even more important.

The true position was summed up by General Spaatz of the United States Air Force a few years ago when he wrote, "We shall stand or fall with the air forces available in the first crucial moment." Why, then, do we and our allies continue to adhere to the expanding nucleus policy? The reasons, it is suggested, are partly military and partly political or economic.

The only apparent justification on military grounds for the nucleus policy can surely be a doubt as to our ability to produce an effective deterrent, coupled with a belief that the next war will last long enough for much of it to be fought along hitherto conventional lines, and that the second, possibly conventional, phase warrants more attention in planning than does the opening, decisive phase. Yet, to produce an effective deterrent is certainly not beyond allied capability; it is simply a matter of bold decision and ruthless application of the right priorities. And to believe that the decisive phase of the next war will last long is to be out of tune with postatomic facts and thought. One is forced to conclude that, from the purely military point of view, present policy must spring mainly from convention—the convention that it always has been thus and

that wars have always lasted a long time; that Great Britain has always managed to hold on until she has gathered and backed her strength; and that the white cliffs of Dover still stand guard and that the people must see the guns.

The politico-economic argument is more obvious, more plausible, and just as conventional. It usually runs as follows:

*Offensive forces alone cannot guarantee either the prevention or winning of war; we must, therefore, have an ensurance and, in any case, the security of the base is one of the principles of war. Also, the public would never stand for the scrapping or reduction of their close defenses. But we cannot possibly afford both large attack forces and a reasonable amount of ensurance, so we had better plan to stave off the enemy and then see what we can do about building up attack forces.*

This argument, and in particular the last sentence, has been largely answered already. It is true that nothing can be *guaranteed*, but air attack always carries with itself a markedly greater probability of success than can ever normally be expected of close air defense. Furthermore, if offensive forces alone cannot guarantee either the prevention or winning of war, still less can this be achieved through a Jack-of-all-trades policy; it is surely better to concentrate on one essential and have a good chance of success, than to have a bit of everything and be virtually certain of failure. There would, it cannot be doubted, be a great public outcry if the close defenses were reduced by three-quarters in order that bomber command could be doubled, but it is after all the duty of the nation's leaders, with their greater knowledge, to form and lead public opinion rather than bow before it. The principle of war of the security of the base will always be sound, but it is not a part of that principle that security must be achieved through close defense.

A radical change in planning attitude of mind seems needed. Defense planning today, at any rate in theory, appears to start from the question, "How strong, in terms of ability to deliver bombs accurately, is the possible enemy?" If, the argument continues, this strength were set against us, how much of it could we accept and still be able to assure a minimum standard of living, a continuance of close defense and a buildup for an eventual and victorious counterattack? The difference between what may be set against us, and what we think we can accept, is the scale that we have to stop, and, were true priority given to close defense, it would be planned to have the strength and skill necessary to achieve this; only after this would effort be made available for other things. This would be at least logically, if not strategically, sound. In practice, however—possibly as the result of discovery that the strength and skill needed are unachievable—the proposition is at some point abandoned, a main aim is sacrificed before the insistence of other demands, and refuge is taken in a let's-have-a-bit-of-everything policy.

The question that should be asked is not how strong, but how weak is the enemy in terms of what *he* can accept?

### Conclusion

To recapitulate, we arrive at six fundamental premises:

1. Our national defense creed is to prevent war if we can; otherwise to win.

2. A deterrent can only deter if it makes itself known, and if it is immediately and actually capable of doing what it threatens. (The one thing likely to encourage an aggressor to take a chance would be the knowledge that he would not have to worry for a while about full retaliation.)

3. The war will be decided by what we have at the start.

4. Half measures are no good; we must go all the way.

5. We cannot afford full measures all around; so we have to decide between close defense or attack defense priority.

6. Attack defense gives the best hope of prevention and the only hope of winning.

Accepting these premises, we can take the above question, "How weak is the enemy?" as the starting point of a defense policy. The question is not an easy one to answer, but it is no harder than its alternative. It must be answered as accurately as our intelligence can permit, and a considerable factor then applied for error. Having determined this data—which, being variable, must of course always be under review—we should direct all defense planning and effort toward producing and maintaining forces able to deliver a scale of attack well in excess of that judged the maximum that any probable enemy could accept. In carrying out this policy we shall require great singleness of mind; there must be no looking over the shoulder, and we must be quite ruthless in relegating lower down the scale everything that does not contribute directly toward our purpose. Our plans should be drawn up on an assumption of "no time," the entire power needed to attain our aim being available and standing ready at all times when danger threatens. Finally, we must change our attitude regarding security; there can be no deterrent unless the person at whom it is aimed is aware of what threatens him and is convinced of its ability to do him the harm it professes; and we should proclaim our intentions and our capabilities.

One criticism must be met here—the criticism of the man who says, "Supposing the enemy adopts the same policy, supposing he takes our measure and goes all out for the offensive, what then?" The answer is that the enemy will, if he has any strategic sense, certainly do this, but



it need disturb us only if we have ourselves failed to follow a similar policy. As long as we can immediately deal a greater blow than an enemy is willing to accept, the fact that he can do the same to us is in a sense irrelevant. We shall be in a state of double deterrent and an almost certain, if expensive, peace.

An attempt has been made to argue the case for priority for the offensive generally, rather than for any particular offensive arm. If the argument has been related mainly to air forces, this is simply because the Royal Air Force is the au-

thor's service. The principle of priority for the offensive is the first thing that should be established; the actual form of the offensive is a second step and another theme. It is suggested, however, that acceptance of the principle brings with it a need for an integration of defense policy in the form of a national supraservice attack plan. This plan would be the authority for stating beyond all dispute what arms were to receive absolute priority by virtue of their deterrent and war-winning roles, and for allocating remaining resources between other claimants.

## Tank Versus Tank Battle

Digested by the MILITARY REVIEW from an article by Major V. P. Naib in the "United Service Institution Journal" (India) July 1954.

THE war and its aftermath have given rise to quite a few tactical concepts on the employment of armor. Many of these ideas were originated to meet particular battle conditions and were not evolved by a process of logical reasoning for determining the place of armor in battle.

After the phenomenal success of German armor in France, the Allied command became preoccupied with the task of stopping the German armored onslaught because that was the urgent problem. Both in the Soviet Union and in the North African theater, all energies were directed to achieve this end. Consistent with this policy, armor was thrown into battle primarily to defeat German armor. It was laid down in the North African theater that the primary task of armor was to defeat and destroy enemy armor. The result was a total failure in both the theaters. What eventually stopped German tanks was not Allied armor or anti-tank guns. In the Soviet Union, it was faulty German planning, lack of reinforcements, and the bogging down in the "Rus-

sian Mud" of the supporting arms and the supply echelons. In North Africa, it was again lack of reinforcements and supplies due to faulty planning by the German High Command. This was again due to the failure to realize the strategic importance of the North African theater by the German High Command, who regarded it as a "side show" to help and buttress Italian morale. As Field Marshal Rommel has pointed out, "There was no understanding in the Führer's Headquarters of the art of creating strategic centers of gravity at the decisive point."

In North Africa, the British failure was due to lack of appreciation at higher levels of command of the mobile nature of operations, lack of training at lower levels in the tactical handling of armor and antitank artillery as a tank-destroying team, and in the initial stages only, the lower punching power of the low caliber tank guns. Rommel never launched his armor to seek out British armor and destroy it. His aim was always deep penetration for disrupting the enemy com-

munications, headquarters, and supply echelons. He always conserved his armor to deal the final blow. If he could avoid meeting Allied armor and still achieve his aim, he did so. But whenever he was forced into a tank versus tank battle, he used tanks primarily for maneuver and led the British tanks into tank killing areas, which were sometimes previously planned but quite often improvised during battle. Here the powerful 88-mm guns knocked out the British tanks. The knocking out of enemy tanks by his own tanks was purely incidental to the over-all plan. Rommel always maintained that "as armor is the core of the motorized army and everything turns on it, the war of attrition against enemy armor must be waged as far as possible by the tank destruction units." In addition to this basic concept, Rommel was compelled to conserve his armor because he also knew that, with his vulnerable communications across the Mediterranean and the long trek along the North African coast, he could not obtain quick replacements, not to speak of reinforcements, to his *Afrika Korps*.

Somehow the dead hand of the past appears to be preventing us from developing a modern, realistic concept of war based upon the real capabilities of armor. We still hear people talking about armor defeating armor in a tank versus tank battle and "providing mobility and freedom of action to the main force," which in effect means "using a mobile force to give mobility and freedom of action to an immobile force, a proposition *prima facie* illogical." If we follow this policy, we will be committing the same mistakes that the British and the Soviets did, with perhaps more disastrous consequences, because we will not have at our disposal the inexhaustible Allied arsenal to steamroller into success. Criticizing this concept, someone has pointed out that "to throw away such a potent piece as a tank

force in fighting the enemy tank force is as foolish as for a chess player to begin by swapping queens."

Another contributing factor to this fallacy is the postwar development of anti-tank tactics and equipment, particularly in America. The antitank weapons have gone through a full development cycle and now it has been accepted universally that the antitank gun must possess good cross-country mobility and armor protection. Some have pointed out that it must be a tank and have advocated that it must have more armor and a bigger gun. The development of the heavy gun-tank in the United Kingdom is based on this line of thought. They have equipped their infantry divisions with heavy gun-tank regiments, as tank killers, in the place of the old Division Regiment of the Royal Armored Corps equipped with light tanks. This has also led to the elimination of the antitank artillery regiment from the organization of the division. They have also included a troop of these heavy gun-tanks in each of the saber squadrons of their armored regiments. According to the information available, the reason for this inclusion is to ensure that the armored division during its mobile operations is not out-gunned when suddenly confronted with the *Josef Stalin* tank in the depth of Soviet defenses. One cannot help feeling that this is a legacy of the past, the Allied respect for the German 88-mm gun and the Panzer *Jaegers* projected into the Soviet theater in a future war.

The advisability of including heavy gun-tanks in the armored regiments is questionable because, due to their smaller radius of action, greater weight, and slower speed, they will definitely cramp the style of medium armor in its mobile role. The idea appears to be as impracticable as if someone, during the pre-gunpowder era, has suggested the inclusion of elephants as an integral part of cavalry merely because of the apprehension

of meeting elephants in the enemy defenses. The point at issue, however, is that the role of armor and the role of tank destroyers should not be confused. Whether the tank destroyer is another tank, assault gun, self-propelled antitank gun, or any other weapon, it should be integrated into a tank destroyer team with infantry and normal armor, and the latter should not be treated as the primary antitank weapon.

### The Battle

From the foregoing, it is clear that tank destruction in a deliberately sought out tank versus tank battle is an expensive business, particularly for a country which does not manufacture tanks in large numbers. But there are occasions, when it is forced upon us and our tanks should be ready to meet the challenge, while bearing in mind that, essentially, the crippling or destruction of the enemy tank force is achieved by leading the enemy tanks into the jaws of our tank-destroying teams. I have used the expression "tank-destroying teams" advisedly, because, considering our present resources, destruction of enemy tanks could only be achieved economically by the integrated effort of all arms.

I shall now proceed to discuss the battle under the various operations of war with particular reference to the role of the tank in tank destruction.

The conduct of defense as a preliminary to the launching of offensive operations must itself be offensive and its aim should be primarily the destruction of enemy armor. In order to do this successfully, the defense must be organized into a system of strong points in depth. These strong points should consist of nothing less than brigade sectors organized in such a way that they are capable of fighting independently even when surrounded. It would be preferable to organize battalion localities as strong points but this is at present not practicable unless the infantry bat-

talion is organically equipped with anti-tank guns or assault guns in addition to its close range antitank weapons.

These strong points will have three tasks in the defensive battle. First, they stop the initial attack by the enemy who will naturally support his infantry with tanks and artillery and, quite possibly, air. Second, they separate the initial attacking troops from the forces following the initial attack and these are necessarily enemy armored forces. The disposition of our strong points should be such that they effect this separation and dictate the direction of attack for enemy armor and, at the same time, form the bases or pivots for maneuvering our own counterattacking force. While doing so, they achieve the third important task which is incidental to the other two. This is their individual contribution to tank destruction and the placing of our counterattack force at a moral and material superiority over the enemy in the final act of the drama which is the destruction of enemy armor. They do the latter by blunting and disorganizing the enemy armored thrust and making the enemy tanks fight and expend their ammunition so that they are at a definite disadvantage when meeting our armor. This reduction in tank fire power largely neutralizes the inevitable numerical tank superiority of the attacking forces. This is offensive defense.

### Attack

It will be seen from the above that our tanks meet enemy tanks only at the very end, after enemy armor or what is left of it has overcome or bypassed our strong points and passed through our tank killing areas on to our vital ground. The organization and planning of our counterattack should aim at getting this enemy force at a disadvantage from the flanks and delivering the final blow.

In the attack battle, the problem of facing enemy tanks arises on two occa-

sions. Initially, we meet enemy tanks when they counter our penetration into the enemy's defenses or when they counterattack to eject us from ground vital to the enemy. The destruction of his tanks and his defeat depends on the quickness and efficiency of our reorganization. The battle in this instance should be based primarily on our antitank weapons. When tanks are available, they should be used primarily to cover the dangerous gap between the arrival of the infantry on the objective and the placing of the antitank guns, according to the accepted drill. The points to remember here are reconnaissance of suitable fire positions, including alternative fire positions, without delay; the drill for replenishment of ammunition; and good fire discipline.

The second occasion when we can expect to meet enemy tanks is during the breakout and pursuit phases of the attack, when the enemy would be compelled to cover his withdrawal with armor. As he would naturally be anxious to save as much of his armor as possible, he cannot afford to be bold and undertake risky operations involving heavy casualties to his armor. A withdrawing enemy would naturally fight with his armor from prepared fire positions to delay our advance. Under these circumstances, we should take advantage of the enemy's sensitiveness to our outflanking moves and the cutting of his routes of withdrawal. We should not normally rush his positions by frontal assault as that would result in casualties to our own armor and we should avoid this as much as possible. But the important point to remember here is that there is never any point in attempting an outflanking move around the enemy force unless it is engaged and tied down frontally. This is because the enemy force being mobile can always hold up the outflanking columns and slip out of the trap.

The frontal engagement can be carried out by our infantry and artillery assisted,

if necessary, by our armor. The outflanking armored force must be accompanied by self-propelled antitank guns, so that on reaching a suitable position astride the route of withdrawal, the latter can be deployed under the cover of our armor. This is invaluable because the self-propelled antitank guns will then act as a secure fire base and a pivot of maneuver for the tanks in addition to their task of tank killing. It may be mentioned here, as a point of interest, how much more effectively this task can be accomplished if we can have assault guns instead of self-propelled antitank guns. The motorized infantry should move up as early as possible and deploy on this firebase. This is the best method of cutting off enemy armor and destroying it, consistent with the security of our own armor. It is needless to stress that boldness, speed, and initiative on the part of the armored commanders is the basis of success.

### Withdrawal

As the aim of the covering forces in a withdrawal is to delay the enemy while our own defenses are being organized, the task of inflicting casualties on enemy armor becomes incidental and of secondary importance. This cannot ever be attempted from covering positions or minor delaying positions. But, consistent with the main task, every opportunity should be taken to organize tank traps with our armor and antitank guns. This can be done best at the intermediate positions by covering the likely tank approaches, particularly on the flanks. No other position, except the main defenses, can provide the necessary security for the operation of tank destroyer teams. The organization of these tank traps requires adequate reconnaissance and careful planning and a very fine judgment on the part of the commander as to when he should break off action and withdraw the troops forming the tank traps. Otherwise, the entire withdrawal operation may be jeop-

ardized by the loss of valuable equipment. Careful reconnaissance of fire positions and covered routes of withdrawal, arrangements for early warning of tank approaches, adequate fire support, and efficient intercommunications are essential for the successful organization of these tank traps.

### Advance

When armor is leading the advance in force and not merely as the spearhead of an infantry formation, the operation is definitely different and something bigger and wider than the orthodox advance taught in our instructional establishments as one of the operations of war. What I have in mind is the entire battle based on a moving pattern in which the armored force advances through a succession of objectives and drives deep into the enemy territory on to a strategical objective. There will be numerous occasions when we will meet enemy armor ranging from light reconnaissance troops to heavier armor as we encounter stronger opposition. The tactics will be similar to those discussed under the breakout and pursuit phases of the attack but with one important difference. As we will not be advancing against a withdrawing enemy force defeated in battle, we cannot take similar risks. There is need for greater security, which means that our armor should advance from firm base to firm base. These firm bases are actually fire bases organized by the accompanying artillery and infantry support elements, which are necessarily motorized. In addition to providing security for the operation of our armor,

these are necessary for bringing up the supply echelons. Adequate air supply, air transportation, and tactical air support would tremendously increase the range and scope of these operations but the provision of so much air support depends on various factors. As far as the destruction of enemy tanks is concerned, the point to remember is that our armor should work in close co-operation with self-propelled antitank or assault guns and tactical air. The tank-destroying team will continue to operate as described previously.

### Conclusion

From the foregoing discussion, it is clear that destruction of enemy tanks is a continuous process achieved by the combined effort of all arms. The contribution of tactical air, although not considered in detail, is, nevertheless, very important. It is once again emphasized that in order to conserve our armor the tank versus tank battle should never be deliberately sought. Whenever forced to join in one, our armor should be trained to fight it out, but only until such time as would be necessary for the deployment of our tank-destroying teams in favorable positions. Once the tank destroyers are ready, our armor should break off the engagement in such a manner that by clever maneuvering the enemy tanks are led on to our tank destroyers for the final slugging match. These tactics require, on the part of the junior leaders and the crew commanders, considerable skill, dash, and initiative which can only be obtained by vigorous and well-directed training.

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# BOOKS OF INTEREST TO THE MILITARY READER

**STRATEGY. The Indirect Approach.** By B. H. Liddell Hart. 420 Pages. Frederick A. Praeger, New York. \$5.95.

By LT COL MARSHALL H. ARMOR, JR., *Arty*

*Strategy*, B. H. Liddell Hart's latest, is a reissue (with some additions) of *The Strategy of Indirect Approach*, which was published in 1941 and which was a reissue (with few additions) of *The Decisive Wars of History*, published in 1929. Hence, most of the chapters and paragraphs in *Strategy* were written a quarter of a century ago. There is little evidence in the present volume that their author has subjected them to objectively critical re-evaluation.

Captain Liddell Hart has enlarged *The Strategy of Indirect Approach* by adding chapters on Hitler's run of victory, his decline, and his fall, and—as appendices contributed by others—narrative analyses of the Arab-Israel war and of the North African Campaign, 1940-42.

The present volume also includes a more detailed deprecation of Clausewitz than has appeared heretofore in this series. The addition, which quotes freely from Liddell Hart's, *The Ghost of Napoleon* (1933), is not unexpected, however: Liddell Hart's theory of the indirect approach and the war of limited aim is antithetical to the Clausewitzian ideal of destruction of the enemy's armed forces in "an act of violence pushed to its utmost bounds"—as Liddell Hart interprets Clausewitz.

"To nullify opposition by paralyzing the power to oppose," writes Captain Liddell

Hart, "is far better economy of force than actual destruction of apposition, which is always a more prolonged process and more costly to the victor." Therefore, he argues, the art of the general is to produce dislocation of the enemy's psychological and physical balance by movement and surprise, and then to exploit the dislocation.

"The true aim," he concludes, "is not so much to seek battle as to seek a strategic situation so advantageous that if it does not of itself produce the decision, its continuation by a battle is sure to achieve this."

Unfortunately, however, the enemy does not always give up simply because it is provable theoretically that he cannot win. Accordingly, as Clausewitz said and as United States Field Service Regulations reiterate, the ultimate military objective is necessarily the destruction of the enemy's armed forces.

**THE OLD FARMER'S 1955 ALMANAC.** By Robert B. Thomas. 112 Pages. Yankee, Inc., Dublin, New Hampshire. \$0.25.

By MAJ JOHN J. EARLEY, *Inf*

*The Old Farmer's Almanac* is back with its 163d annual continuous edition. The old reliable weather information again dominates the volume, but there are numerous other interesting items. The format of this year's edition is very similar to that of its predecessors of 100 years ago with its yellow cover, size, and hole for hanging on the wall.

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**SICILY — SALERNO — ANZIO.** January 1943-June 1944. By Samuel Eliot Morison. 413 Pages. Atlantic-Little, Brown, Boston, Mass. \$6.00.

BY MAJ LINO BONUCCI, QMC

This is the ninth volume of the author's "History of United States Naval Operations in World War II." It covers three well-known amphibious operations: the landings on the island of Sicily (Husky), the Salerno beachhead (Avalanche), and the most controversial of all, the Anzio Battle (Shingle). In all three operations the Navy, under the command of Andrew B. Cunningham, co-operated splendidly by providing the necessary naval support to land the Army on the proper beaches and by furnishing naval gunfire support—a decisive factor at crucial points along the invasion roads. General Patton, in his summary of the Sicilian Campaign, stated, "On all occasions the Navy has given generous and gallant support." This could not be said of the Air Force which was interested in strategic bombing and would have nothing to do with tactical problems since it was felt that the war could be won by strategic bombings alone.

In addition to the vivid descriptions of troop landings and dispositions, the author goes into the diplomatic and military strategy proceedings which occurred prior to these operations. The Casablanca Conference, which authorized the invasion of Sicily; the Trident Conference held in Washington, D. C., in May 1943, which was the prelude to the invasion of the Italian mainland; and the Cairo Conference, which reaffirmed the prosecution of the Italian Campaign, are covered.

Many military readers will take exceptions to the author's analysis of the operations. Although controversial to many, the reader who is interested in the political, strategic, and tactical maneuvering surrounding these operations will find this book stimulating and interesting.

**THE SECRET FRONT.** By William Hoettl. 327 Pages. Frederick A. Praeger, New York. \$3.95.

**THE SCOURGE OF THE SWASTIKA.** By Lord Russel of Liverpool. 259 Pages. Philosophical Library, New York. \$4.50.

BY MAJ JOHN N. HIGHLEY, USAF

This is a factual summary of the Nazi War Crimes. It explains fully the various international laws and customs that were so flagrantly violated by the Germans during their conquest and occupation of the greater part of Europe. It shows how the Nazis attempted and, in many cases, almost succeeded in eliminating traditions, races, and even entire nations in an effort to propagate the "master race."

The book can quite probably be accepted as factual because the author was legal advisor to the Commander in Chief, British Army of the Rhine, in respect to all trials of German War Criminals in the British Zone. Many of the author's statements are backed up with quoted excerpts from the trials themselves.

To those persons who have never quite believed or fully realized that over 12 million men, women, and children were murdered, and to those additional persons who could not bring themselves to believe the extent of the appalling crimes committed, this book would be enlightening.

**UNDERSEA PATROL.** By Edward Young. 298 Pages. McGraw-Hill Book Co., Inc., New York. \$3.95.

**RIFLE SQUAD AND PLATOON IN ATTACK.** By Major Frank F. Rathbun. 95 Pages. Military Service Publishing Co., Harrisburg, Pa. \$2.00.

**PUBLIC EDUCATION AND A PRODUCTIVE SOCIETY.** By Maurice J. Thomas. 95 Pages. University of Pittsburgh Press, Pittsburgh, Pa. \$1.00.

**EUROPEAN UNION AND UNITED STATES FOREIGN POLICY.** By F. S. C. Northrop. 210 Pages. The Macmillan Co., New York. \$4.75.

By LT COL WILLIS B. SCUDDER, *Arty*

This, the latest of a number of books on foreign policy by Mr. Northrop, was published just prior to the agreements arrived at by Western European nations in the early fall of 1954.

The author devotes a considerable amount of space to the matter of dissension within the Republican Party, and claims that the President has failed to continue the bipartisan foreign policy of the previous Democratic administration.

Mr. Northrop traces efforts made in postwar Europe to bring about European Union. He finds that while there were and are obstacles in the path of such union, as of now, United States foreign policy has proved to be among the most formidable of these obstacles. Such conclusions are best summed up in the author's concluding paragraph:

*Only by objective understanding, contributing to and profiting from this great experiment (European Union), can the United States find a foreign policy that serves both her own values and the peace of the world, thereby in part repairing the dangerous situation, deteriorating fast toward World War III, into which the tragic errors and failures of the foreign policy of candidate and President Eisenhower and his administration have brought the free nations in Europe and in Southeast Asia. Such is the significance, the one for the other, of European Union and United States foreign policy.*

There is, and will continue to be, serious disagreement with Mr. Northrop's stand. There can be no doubt, however, that this book is a must for those who are interested in the struggle for a European Union.

**MCCARTHY AND THE COMMUNISTS.** By James Rorty and Moshe Decter. 147 Pages. The Beacon Press, Boston, Mass. \$2.00.

By LT COL DANIEL A. RAYMOND, *CE*

This book, written at the height of the fervor over a national issue, is designed to capitalize on current public interest. It professes to be an unbiased objective look at McCarthyism in all its aspects—the methods, purposes and objectives, accomplishments, effectiveness, and the beneficial and detrimental results therefrom. Finally, it attempts to analyze the opinions both for and against McCarthy and suggests methods of coping with McCarthy and the Communists.

It is hardly unbiased since it is almost entirely devoted to presenting and attempting to prove the case against McCarthy. If you are anti-McCarthy to begin with, you should find satisfaction and support in the book. If you stand on the other side of the fence, you probably will not be converted nor pleased with its contents and will disagree with the conclusions drawn.

This book does document the case with facts and figures, although if you were an ardent listener, viewer, and reader of newspapers, news magazines, and television during the furor of the congressional hearings, it produces little that will be new to you. The over-all effect is somewhat that of an anticlimactic rehash.

The analysis of the methods and *modus operandi* of the would-be demagogue, which it purports McCarthy to be, is interesting. The suggestions on proper procedures for investigating and uncovering Communists in accordance with the American concept of fair play and justice are commendable.

**CRIMINOLOGY. A Book of Reading.** By Clyde B. Vedder, Samuel Koenig, and Robert E. Clark. 714 Pages. The Dryden Press, New York. \$4.50.